

**HEAD**

***Tyrolia***

**ALPINE SKIBINDINGS**

**07.08**

**TECHNICAL MANUAL**

# TABLE OF CONTENTS

Innovation	- NEW! HEAD BINDINGS - SPEEDRAIL	Page 2
Innovation	- SAFETY FEATURES	Page 4
Template	- TEMPLATE & TOOLS	Page 7
Template	- DRILL TEMPLATE SELECTION	Page 8
Template	- WORKSHOP TOOLS & AIDS	Page 10
Retail	- RETAIL BINDINGS	Page 11
Retail	- HEAD BINDING LINE 2007/08 - DATASHEET	Page 12
Retail	- TYROLIA BINDING LINE 2007/08 - DATASHEET	Page 14
Retail	- HEAD/TYROLIA PARTS REFERENCE CHART RETAIL	Page 16
Mounting	- DRILL TEMPLATE 92 W	Page 17
Mounting	- DRILL TEMPLATE RAILFLEX & RAILFLEX LITE	Page 21
Mounting	- DRILL TEMPLATE 94 W	Page 27
Rental	- RENTAL BINDINGS	Page 29
Rental	- TYROLIA RENTAL LINE 2007/08 - DATASHEET	Page 30
Rental	- TYROLIA PARTS REFERENCE CHART RENTAL	Page 32
Mounting	- DRILL TEMPLATE SP 2003 W	Page 33
Mounting	- DRILL TEMPLATE SR 2003 W	Page 35
Rental	- SYMPRO-SYMRENT-SYSTEM 2007/08	Page 37
Rental	- SYMPRO-SYMRENT ON THE SHOP FLOOR	Page 39
Rental	- BOOT-HANDLING AND TESTING	Page 43
Carve Plate	- CARVE PLATES	Page 45
Carve Plate	- HEAD CARVE PLATES 2007/08	Page 46
Carve Plate	- TYROLIA CARVE PLATES 2007/08	Page 47
Carve Plate	- HEAD BINDING-PLATE COORDINATION LINE 2007/08	Page 48
Carve Plate	- TYROLIA BINDING-PLATE COORDINATION LINE 2007/08	Page 49
Carve Plate	- MOUNTING OF JUNIOR BINDINGS ON HEAD CARVE PLATES	Page 50
Carve Plate	- MOUNTING OF JUNIOR BINDINGS ON TYROLIA CARVE PLATES	Page 51
Carve Plate	- MOUNTING PROCEDURE HEAD/TYROLIA CARVE PLATES	Page 52
Carve Plate	- MOUNTING OF HEAD/TYROLIA BINDINGS ON PLATES	Page 53
Brake Matrix	- HEAD/TYROLIA BRAKE MATRIX LINE 2007/08	Page 54
Service	- BRAKES-SPARE PARTS-MAINTENANCE & SERVICE	Page 55
Service	- HEAD BRAKE LINE 2007/08	Page 56
Service	- TYROLIA BRAKE LINE 2007/08	Page 58
Service	- HEAD SPARE PARTS LINE 2007/08	Page 60
Service	- HEAD SCREW OVERVIEW LINE 2007/08	Page 61
Service	- TYROLIA SPARE PARTS LINE 2007/08	Page 62
Service	- TYROLIA SCREW OVERVIEW LINE 2007/08	Page 63
Service	- TYROLIA SPARE PARTS LINE 2007/08 - RENTAL	Page 64
Service	- MAINTENANCE & SERVICE	Page 65
Service	- TROUBLESHOOTING	Page 69
Adjustment	- ADJUSTMENT	Page 71
Adjustment	- CLASSIFY YOURSELF	Page 72
Adjustment	- RELEASE/RETENTION ADJUSTMENT TABLE	Page 73
Adjustment	- TROUBLESHOOTING RELEASE/RETENTION PROBLEMS	Page 75
Certification	- HEAD/TYROLIA CERTIFICATION REQUIREMENTS	Page 76
Indemnification	- HEAD/TYROLIA RETAILER INDEMNITY PROGRAM	Page 78
Warranty	- HEAD/TYROLIA LIMITED WARRANTY	Page 80
Risk	- RISK MANAGEMENT	Page 81
Risk	- USE OF NON-RECOMMENDED SETTINGS	Page 83
Risk	- POST ACCIDENT INSPECTION REPORT	Page 84
Risk	- SYSTEM PERFORMANCE REPORT	Page 85
Check it out	- USED BINDING / SKI / BOOT CHECK LIST	Page 86
Info Service	- TYROLIA DEALER AREA - tyrolia.com	Page 87
Service	- NOTES	Page 88
Service	- CLASSIFY YOURSELF-CHART 2007/08	Page 89
Service	- HEAD/TYROLIA DRILL TEMPLATE-CHART 2007/08	Page 90

# HEAD®



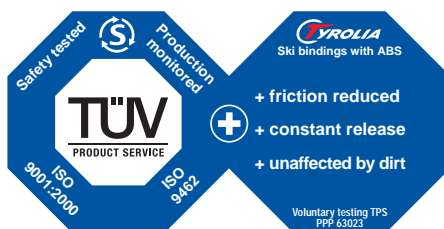
## Ski bindings 2007/2008

### Active safety in all skiing situations

For season 2007/08, we are introducing our new HEAD binding produced by TYROLIA. All HEAD bindings benefit from the long lasting experience and outstanding know-how of TYROLIA in manufacturing ski bindings. Most models of the HEAD binding line showcase a new design - modern and innovative. Colors and graphics are perfectly coordinated with the HEAD ski line. Over and above - all best-known safety and performance features from TYROLIA are integrated in the HEAD binding line.

The uniqueness of HEAD/TYROLIA bindings has also been confirmed by the independent TÜV Product Service Institute. The minimum friction release with ABS ensured excellent results in the safety tests.

TYROLIA has therefore been awarded the HIGH QUALITY MARK for tried-and proven safety of the highest standards.



Safety for unrestricted skiing fun

The 2007/2008 HEAD/TYROLIA Line represents once more the values that stand for all HEAD/TYROLIA products:

QUALITY - SAFETY - PERFORMANCE- LIGHT WEIGHT

## NEW: HEAD BINDINGS

**GECKO MEETS T-REX.** Finally, we can teach even our team riders a lesson in style. **Introducing the new HEAD binding.** It inherits all the cutting-edge safety features from TYROLIA-ABS, Diagonal Heel and Diagonal Toe. But the HEAD binding goes way beyond that. A binding inspired

by the most agile and awesome reptiles. A binding perfectly matching the HEAD ski line. And a binding that sets new standards of convenience with its **all-new SPEEDRAIL System.** The HEAD RAILFLEX II - with TYROLIA Binding Technology.

### RAILFLEX SYSTEM II

#### GLIDING ON RAILS

HEAD's signature RAILFLEX System II has all the RAILFLEX features known from the TYROLIA RAILFLEX-System II. It fits perfectly with the RAILFLEX base, maintaining the characteristics of the ski and allowing it to flex freely.



#### MOUNTING WITHOUT DRILLING

Mounting a binding on a HEAD RAILFLEX II base is as easy as it gets. Simply slide it on the rail, one screw and you are ready to go!



#### INSTANT SIZE- AND PERFORMANCE-RELATED BOOT ADJUSTMENT

Choose your sole-length - open the lever - slide toe and heel to the desired position - close the lever - control your forward pressure - and you're done.

For optimum performance, the boot center can be adjusted over the ski: +15 mm forward for moderate speed, 0 mm for all-round performance, -15 mm backwards for experts.



**EXCELLENT CONTROL.** With the RAILFLEX base perfectly aligned within the ski's binding area, power is distributed evenly throughout the entire length of the ski. A smoother ride and more power in controlling your ski are the natural consequences.



**OPTIMAL POWER TRANSMISSION.** With the binding firmly mounted on the RAILFLEX base, power transmission from foot to edge becomes even more direct.



**DOUBLE FREEFLEX.** The Double Freeflex free-floating suspension is based on two elements: For one, double sided oblong holes in the Railflex base enable the ski to flex underneath. Secondly, gliding toe and heel units provide even more freedom and make sure toe - and heel-pressure remain constant for more safety and performance.

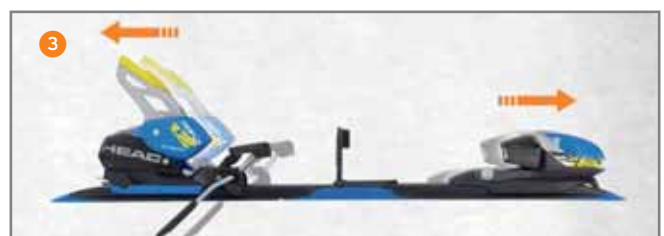




## SPEEDRAIL SYSTEM MAKES SCREWDRIVERS OBSOLETE.

**FIRST YEAR OUT AND ALREADY HEAD BINDINGS ARE SETTING INDUSTRY BENCHMARKS.** Not only does the SPEEDRAIL System cut your set-up-time down to almost zero, it also lets you adjust your client's binding with just one move, without adding bulk or weight to the binding. SPEEDRAIL is compatible with all Railflex II skis.

SPEEDRAIL means that retail skis can be displayed complete with their bindings and can be adjusted effortlessly while you sell them over the counter. Also: Retail skis and demo skis no longer have to differ from each other. Any retail ski with SPEEDRAIL can easily be used as a Demo ski.



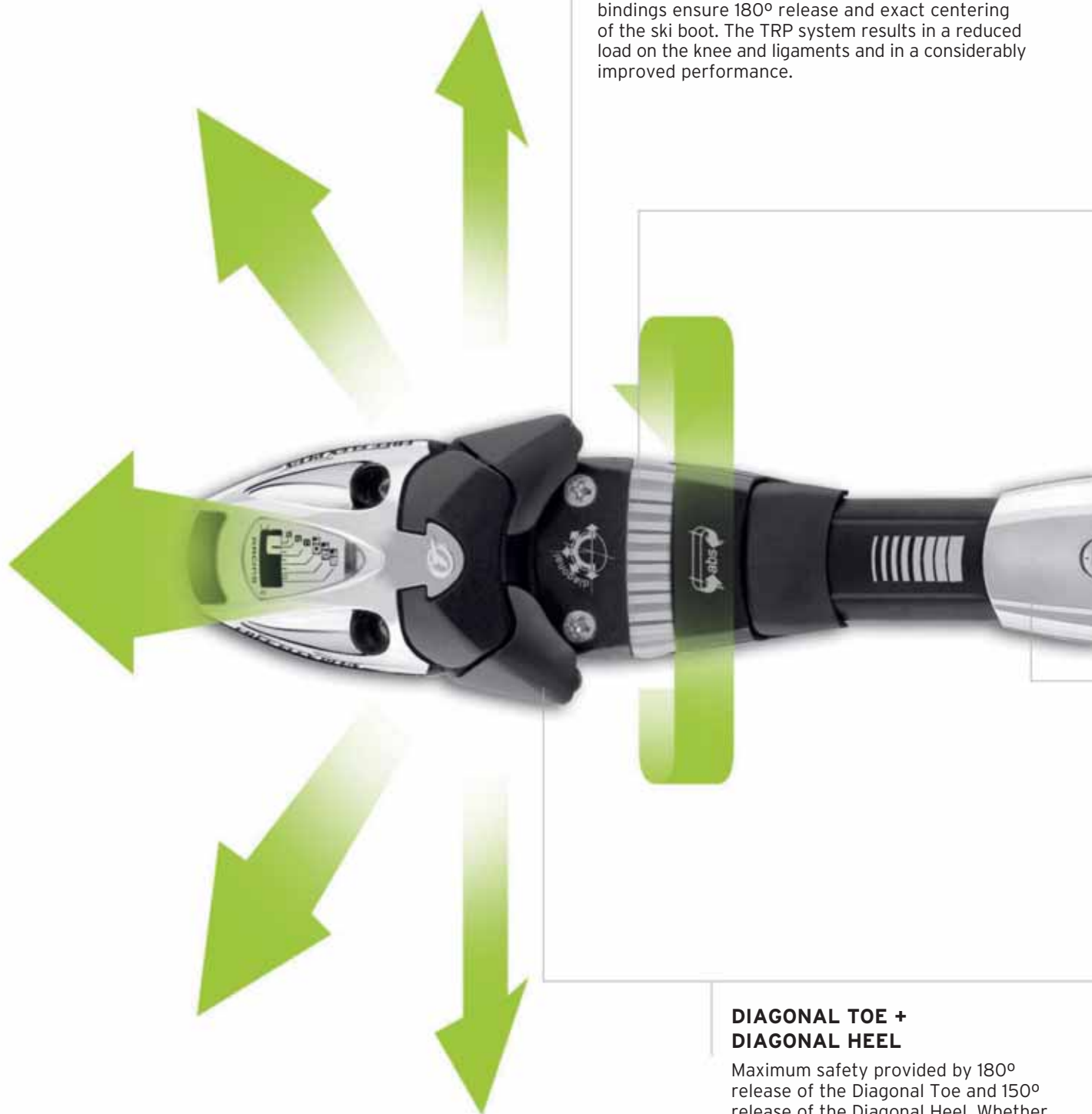
- 1 Open the SPEEDRAIL lever.
- 2 3 Adjust the binding by sliding toe- and heel-piece to the right boot sole length.
- 4 Simply close the lever and your customer is ready to roll.



## SAFETY FEATURES

### TRP TOE SYSTEM

The four rollers and gliding inserts of the TYROLIA bindings ensure 180° release and exact centering of the ski boot. The TRP system results in a reduced load on the knee and ligaments and in a considerably improved performance.



### DIAGONAL TOE + DIAGONAL HEEL

Maximum safety provided by 180° release of the Diagonal Toe and 150° release of the Diagonal Heel. Whether a twisting fall backwards or forwards, the pressure on the knee and ligaments is lowered and the risk of injury is reduced.

# HIGH TECH & HIGH QUALITY

**Safety on Every Slope!** TYROLIA has dedicated itself especially to the core characteristic ACTIVE SAFETY. Unique safety features such as the exclusive TYROLIA ABS band and the TYROLIA Diagonal Heel offer optimal all-round protection for every skier.

## ABS SYSTEM

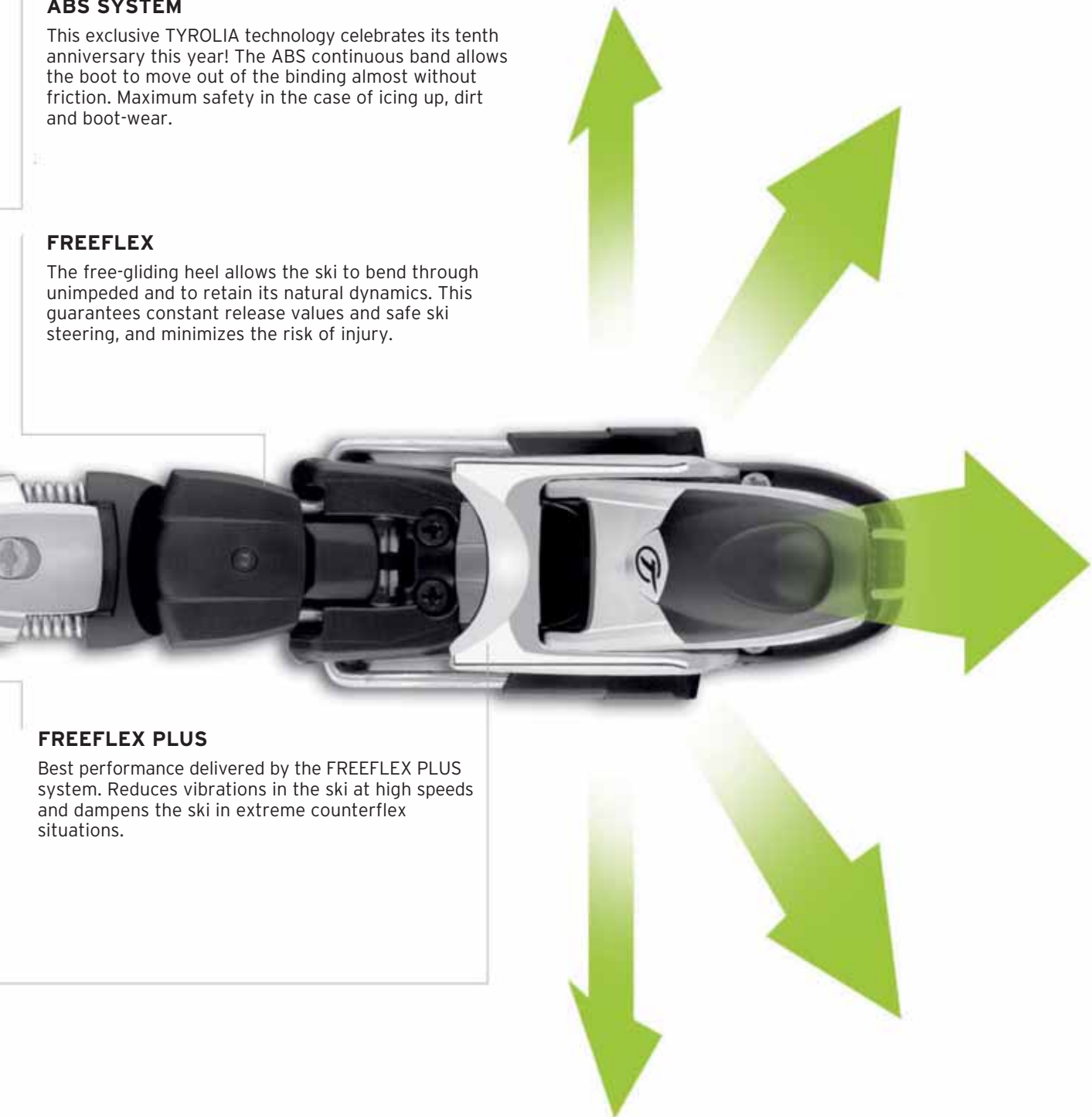
This exclusive TYROLIA technology celebrates its tenth anniversary this year! The ABS continuous band allows the boot to move out of the binding almost without friction. Maximum safety in the case of icing up, dirt and boot-wear.

## FREEFLEX

The free-gliding heel allows the ski to bend through unimpeded and to retain its natural dynamics. This guarantees constant release values and safe ski steering, and minimizes the risk of injury.

## FREEFLEX PLUS

Best performance delivered by the FREEFLEX PLUS system. Reduces vibrations in the ski at high speeds and dampens the ski in extreme counterflex situations.



## SAFETY & PERFORMANCE

### FREEFLEX

#### SAFETY

Thanks to the free gliding heels of HEAD/TYROLIA bindings, the forward pressure stress of the binding on the boot remains unchanged, it guarantees consistent release performance, safe ski steering, and minimal risk of injury in crashes.

#### PERFORMANCE

The ski can decamber freely and maintains its natural dynamic properties.

#### CONVENIENCE

Optimum edge grip and smooth control of the ski.



### FREEFLEX PLUS

#### SAFETY

Guarantees of consistent performance, safe ski steering, and so reduced risk of injury.

#### PERFORMANCE

Spring-loaded mechanism reduces vibrations in the ski at high speeds, especially in extreme counter-flex situations, after tight turns and compressions.

#### CONVENIENCE

Increased ski control when competing in top speed range.



### DIAGONAL TOE

#### FULL DIAGONAL

Intelligent 180° release action both horizontally and vertically. Maximum safety in backward twist-crash situations.

#### RACE DIAGONAL

Diagonal Toe tuned for racing purposes. Higher release force vertically than horizontally holds up to the high backward lean forces in racing.



### DIAGONAL HEEL

#### SAFETY

With a 180° release range the Diagonal Heel releases directly into the direction of fall and reduces pressure on knees and ligaments.

#### PERFORMANCE

Cleverly designed Diagonal release cam for easy step in.

#### CONVENIENCE

Perfectly balanced heel retention in all directions enables high levels of power transmission without unwanted releasing.



### ABS SYSTEM

#### SAFETY

No-friction release significantly reduces strain on ligaments in forward twisting falls. Perfect release regardless of temperature, boot-wear, icing-up, or dirt on the binding.

#### CONVENIENCE

Self-cleaning design and maintenance-free.

#### PERFORMANCE

Best results in independent safety testing and awarded with the TÜV HIGH QUALITY MARK.



### TRP TOE SYSTEM

#### SAFETY

The HEAD/TYROLIA 4-Roller Pincer system remains flexible at all times, absorbing short impact peaks on ligaments and automatically recentering the boot. Perfect 180° release action allows up to 30% higher retention force without compromising on safety.

#### CONVENIENCE

Easy entry and perfect centering of the boot, no snow- or dirt-clogging.

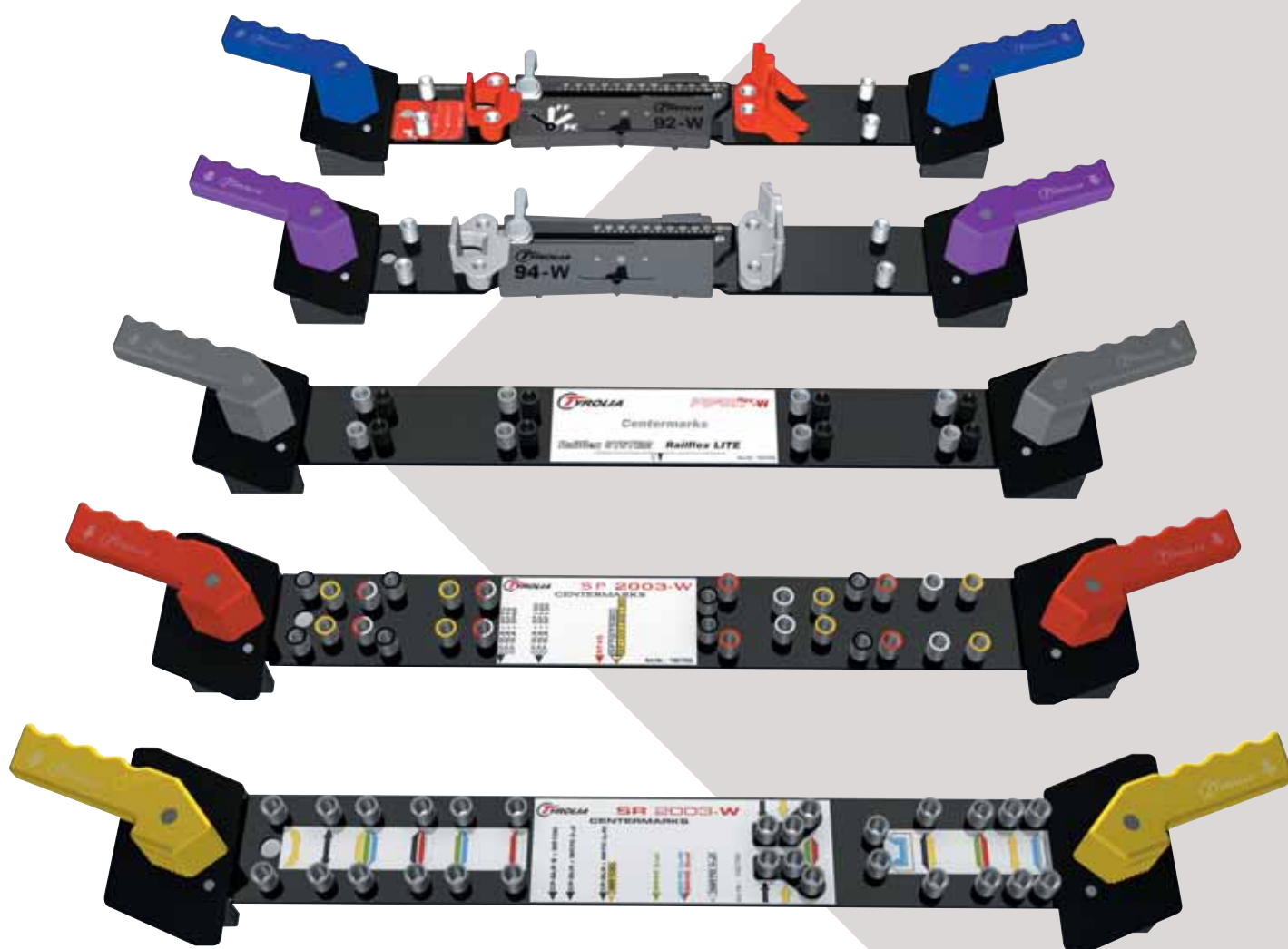
#### PERFORMANCE

Positive power transmission, perfect power link between boot and binding (30% better centering accuracy than conventional cams).





# TEMPLATES & TOOLS



## DRILL TEMPLATE SELECTION

### DRILL TEMPLATE 92 W (162 760)



#### HEAD

##### LINE 07.08

FREEFLEX PRO 18 (X), FREEFLEX PLUS 17, FREEFLEX PLUS 14, FREEFLEX PLUS 11, LD 12 CYBER, LD 12, MOJO 20 (X), MOJO 15, MOJO 11, MOJO 7.5, SL 110 ABS, SL 100, GOLD THANG 12 LD, SL 75 ABS, SL 75, SL 70 AC, CARVE PLATE 13 SLR, CARVE PLATE 9 SLR, HEAD PLATE 14

#### TYROLIA

##### LINE 07.08

FREEFLEX PRO 18 (X), FREEFLEX PLUS 17, FREEFLEX PLUS 15, FREEFLEX PLUS 11, LD 12 CYBER, LD 12, SL 110 CARVE ABS, SL 100, SL 75, SL 70 AC, CARVE PLATE 13 SLR, CARVE PLATE 9 SLR, JUNIOR PLATE 11

##### EARLIER LINES

FREEFLEX PLUS 18 (X), FREEFLEX PLUS 15 (X), FREEFLEX PLUS 10 (X), FREEFLEX PLUS 8 (X), FREEFLEX PLUS 14, FREEFLEX PLUS 10, FREEFLEX PLUS 8, FREEFLEX PLUS 8 LD, FREEFLEX PLUS 7, MAD FLEX 9, SLD 11 ABS, LD 12 S, LD 10, CYBER CARBON D 9 SX, CYBER CARBON D 9, CYBER D 8 SX, CYBER SL 110, CYBER D 9z, CYBER D 8, CYBER 8, CYBER 7, CYBER 6, CYBER 4, CYBER FREEFLEX, MOJO 20 (X), MOJO 15, MOJO 11, MOJO 7, POWER SELECT FREERIDE 9\*, POWER SELECT FREERIDE 8\*, POWER SELECT FREERIDE SL 110\*, POWER SELECT 9\*, POWER SELECT 9 RENT\*, POWER SELECT 8\*, POWER SELECT 8 RENT\*, POWER SELECT 8 RENT\* DEMO, SL 110 ABS, SL 110 S ABS, SL 100 CARVE ABS, SL 100 ABS, SL 100 CARVE, SLW 90 ABS, SL 70 CARVE ABS, SL 70 ABS, SL 70, TD 9 T, TD 8 TS, TD 8, T 7, T 6.5, T 6, T 5.6i, T 5.6, T 5, FREEFLEX 9 WORLD CUP, FREEFLEX 9 RACING, FREEFLEX 8 RACING, FREEFLEX 9 T, CARVE FLEX 6, CARVE FLEX 4, SYMRENT 4, FREEFLEX JUNIOR RACE 11, T 6, SUPER CARVE PLATE 23X, SUPER CARVE PLATE, SPEED PLATE, CARVE PLATE 13 SL, CARVE PLATE 9 SL, CARVE PLATE 9, CARVE PLATE TS, CARVE PLATE PS, CARVE PLATE, JUNIOR RACING PLATE, EASY CARVER

### DRILL TEMPLATE RAILFLEX & RAILFLEX LITE (162 756)



#### HEAD

##### LINE 07.08

RAILFLEX BASE 07, RAILFLEX BASE 06, RAILFLEX LITE BASE

#### TYROLIA

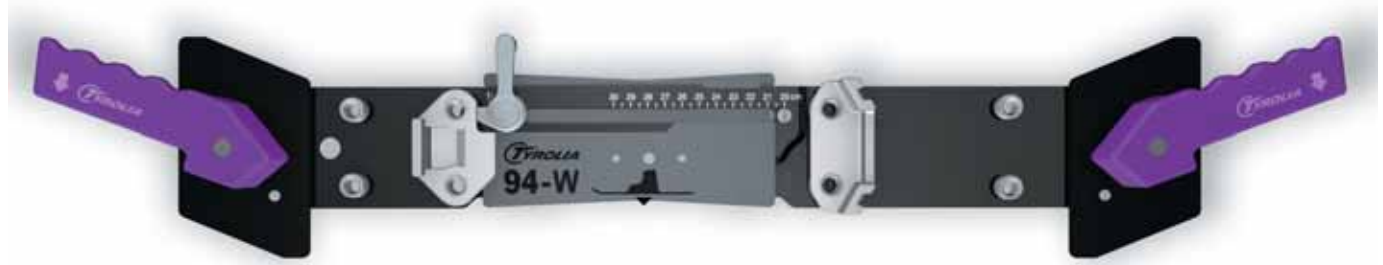
##### LINE 07.08

SUPER RAILFLEX BASE II, RAILFLEX BASE II, RAILFLEX LITE BASE

##### EARLIER LINES

SUPER RAILFLEX BASE, RAILFLEX BASE

## DRILL TEMPLATE 94 W (162 761)



### HEAD

#### LINE 07.08

SL 45

### TYROLIA

#### LINE 07.08

SL 45

#### EARLIER LINES

SYMRENT 2 SL, SPIRIT 2, 620 D, T2

## DRILL TEMPLATE SP 2003 W (162 763)



### TYROLIA

#### LINE 07.08

SP 130 ABS DEMO AERO, SP 120 ABS, SP 100 ABS, SP 90 ABS, SP 75 ABS, SP 45

#### EARLIER LINES

SP 70 ABS, SYMPRO 9 ABS DEMO AERO, SYMPRO 9 ABS, SYMPRO 9 ABS DEMO, SYMPRO 9 ABS PROMO, SYMPRO 8 ABS, SYMPRO 8 ABS DEMO, SYMPRO 8, SYMPRO 7, SYMPRO 4, SYMPRO 2 SL, SYMRENT 9 PRO, SYMRENT 8 PRO, 750 DS PRO, 680 DS PRO, 650 DS PRO, CARVE PLATE 13 SLR (only Rental), CARVE PLATE 9 SLR (only Rental), JUNIOR RACING PLATE (only Rental)

## DRILL TEMPLATE SR 2003 W (162 762)



### TYROLIA

#### LINE 07.08

SR 100, SR 70, SR 45

#### EARLIER LINES

SR 75, SYMRENT 7, SYMRENT 6, SYMRENT DEMO, SYMRENT 3, SYMRENT 2 SL, SYMRENT 2, 680 DS PRO, 650 DS PRO, 650 DSR, CARVE PLATE 13 SLR (only Rental), CARVE PLATE 9 SLR (only Rental), JUNIOR RACING PLATE (only Rental)

## WORKSHOP TOOLS & AIDS

Tool	Packed/art. nr.
 Drill Template Adapter-Set (adapter for TYROLIA-Templates)	per piece 162 569
 Drill 4,1 Ø x 7 mm long Drill 4,1 Ø x 9 mm long Drill 3,5 Ø x 7 mm long Drill 3,5 Ø x 9 mm long Drill-set complete	per piece 162 772 per piece 162 773 per piece 162 770 per piece 162 771 per set 162 774
 Screwdriver for all adjustment screws Screwdriver + magnetic bit (160 805) Handy Ratchet incl. bits (162 575 + 162 576) Slotted Screw Bit for Handy Ratchet Pozidrive 3 Bit for Handy Ratchet	per piece 160 806 per piece 162 800 per piece 162 574 per piece 162 575 per piece 162 576
 Universal bit for Screwdriver 162 800 and electric drivers hexagon. 1/4" (6.35 mm) Screwdriver for electric driver (Black & Decker, Skill, Thor, Atlas-Copco, Virax, Consolidated, Bosch, Ingersoll-Rand), hexagon. 1/4" (6.35 mm)	per piece 160 805 per piece 160 802
 Screwdriver for electric driver (Bosch, Metabo, AEG), hexagon. 1/4" (5.5 mm) Screwdriver for electric driver (Fein, AEG)	per piece 160 803 per piece 160 804
 Special set for repairs Drill bit for repair set Special plastic plugs for repair set	per set 162 127 per piece 162 128 1 set = 50 piece 162 129
 Plastic plugs mixed Plastic plugs silver	500 piece 160 857 500 piece 162 856
 Service-Grease-Spray (500 ml) TYROLIA Grease TYROLIA Glue	per piece 162 779 per piece 160 052 per piece 160 858
 Rubber band for brake	10 pieces 162 562
 Brake Retainer for all POWER BRAKE-Models	per piece 162 769
 Rental Boot Indicator (Single Code, mm) Slide (replacement) for Rental Boot Indicator	per piece 162 617 per piece 162 518
 Tibia-Chart Release/retention chart (weight method, new ASTM and ISO-Standard, DIN A3, water resistant, English Version)	per piece 169 431 per piece 169 756
 "SINGLE CODE" Rental Boot Stickers (5 sheets)	per set 162 561

# RETAIL BINDINGS





## HEAD BINDING LINE 07/08

Model	Z-DIN	kg	lbs	Feature	AFD	Toe stand height	Toe system	Toe type	
COMPETITION									
FREEFLEX PRO 18 (X) SALE	9-18	from 87	from 188	FREEFLEX PRO	TEFLON	12	RACE DIAGONAL	AERO	
RACE									
FREEFLEX PLUS 17	6-17	from 58	from 128	FREEFLEX PLUS	ABS	17.5	RACE DIAGONAL	AERO	
FREEFLEX PLUS 14	4-14	from 42	from 92	FREEFLEX PLUS	ABS	17.5	FULL DIAGONAL	LD	
FREEFLEX PLUS 11	3-11	from 31	from 67	FREEFLEX PLUS	ABS	17.5	FULL DIAGONAL	LD	
RAILFLEX SYSTEM									
RFD 14	4-14	from 42	from 92	SPEEDRAIL	ABS	32	RACE DIAGONAL	AERO	
RFD 14 DEMO	4-14	from 42	from 92	RAILFLEX DEMO	ABS	32	RACE DIAGONAL	AERO	
RFD 12	3.5-12	from 36	from 79	SPEEDRAIL	ABS	32	FULL DIAGONAL	SL HEAD	
RFD 11 DEMO	3-11	from 31	from 67	RAILFLEX DEMO	ABS	32	FULL DIAGONAL	SL HEAD	
RF 11	3-11	from 31	from 67	SPEEDRAIL	ABS	32	FULL DIAGONAL	SL HEAD	
RFL 7.5	2-7.5	22-84	48-187	RAILFLEX LITE	ABS	27.5	FULL DIAGONAL	SL LITE	
RFL 4.5	0.75-4.5	10-48	22-105	RAILFLEX LITE	TEFLON	23.5	FULL DIAGONAL	SL KID	
LIGHT DIAGONAL									
LD 12 CYBER	3.5-12	from 36	from 79	CYBER FF	ABS	23.5	FULL DIAGONAL	SL HEAD	
LD 12	3.5-12	from 36	from 79	—	ABS	17.5	FULL DIAGONAL	SL HEAD	
LD 12 WIDE BRAKE	3.5-12	from 36	from 79	—	ABS	17.5	FULL DIAGONAL	SL HEAD	
MOJO									
MOJO 20 (X)	10-20	from 97	from 209	—	TEFLON	12	RACE DIAGONAL	AERO	
MOJO 15	5-15	from 49	from 109	—	ABS	17.5	RACE DIAGONAL	AERO	
MOJO 11	3-11	from 31	from 67	—	ABS	17.5	FULL DIAGONAL	SL HEAD	
MOJO 7.5	2-7.5	22-84	48-187	—	TEFLON	12	FULL DIAGONAL	SL LITE	
SUPERLIGHT									
SL 110 ABS	3-11	from 31	from 67	—	ABS	17.5	FULL DIAGONAL	SL HEAD	
SL 100	3-10	from 31	from 67	—	TEFLON	12	FULL DIAGONAL	SL HEAD	
WOMEN									
GOLD THANG 12 LD	3.5-12	from 36	from 79	—	ABS	17.5	FULL DIAGONAL	SL HEAD	
SURE THANG 9 RF	2.5-9	from 26	from 57	SPEEDRAIL	ABS	32	FULL DIAGONAL	SL LITE	
LITE THANG 9 RFL	2.5-9	from 26	from 57	RAILFLEX LITE	ABS	27.5	FULL DIAGONAL	SL LITE	
JUNIOR									
SL 75 ABS	2-7.5	22-84	48-187	—	ABS	17.5	FULL DIAGONAL	SL LITE	
SL 75	2-7.5	22-84	48-187	—	TEFLON	12	FULL DIAGONAL	SL LITE	
SL 70 AC	2-7	22-78	48-174	—	TEFLON	11.3	FULL DIAGONAL	SL JUNIOR	
SL 45	0.75-4.5	10-48	22-105	—	TEFLON	11.3	FULL DIAGONAL	SL KID	

# DATASHEET

	Heel stand height	Heel type	Brake type	Ramp angle (mm)	Length adjustment range (mm)	Boot sole type	Boot sole length (mm)	Drill template	Weight set
	17	RACE PRO	PB RACE PRO 17-78	5	32	ADULT	255-375	92 W	3030 g
	21	DIAGONAL	PB LD 78	3.5	24	ADULT	257-362	92 W	2720 g
	21	LD	PB LD 78	3.5	24	ADULT	257-362	92 W	2520 g
	21	CONTROL	PB LD 78	3.5	24	ADULT	257-362	92 W	2345 g
	35	LD	PB LD RAIL 80	3	—	ADULT	260-360 (290-390)	RF & RF LITE	2585 g
	35	LD	PB LD RAIL 80	3	100	ADULT	263-363	RF & RF LITE	2695 g
	35	LD	PB LD RAIL 80	3	—	ADULT	260-360 (290-390)	RF & RF LITE	2320 g
	35	LD	PB LD RAIL 80	3	100	ADULT	263-363	RF & RF LITE	2560 g
	33	SL HEAD	SL BRAKE RAIL 78	1	—	ADULT	260-360 (290-390)	RF & RF LITE	1940 g
	31	SL LITE	SL JUNIOR BRAKE RAIL 78	3.5	8	ADULT	220-300 / 240-325	RF & RF LITE	1460 g
	31	SL KID	SL KB RAIL 74	7.5	8	A / C	220-300 / 240-325	RF & RF LITE	1305 g
	31	LD	PB LD 78	7.5	24	ADULT	—	92 W	2390 g
	21	LD	PB LD 78	3.5	24	ADULT	—	92 W	1960 g
	21	LD	PB LD WIDE 93	3.5	24	ADULT	—	92 W	1960 g
	21	DIAGONAL	PB LD wide 93	9	28 (-16/+12)	ADULT	—	92 W	2620 g
	21	DIAGONAL	PB LD WIDE 93	3.5	24	ADULT	—	92 W	2370 g
	21	SL HEAD	PB LD WIDE 93	3.5	32 (-8/+24)	ADULT	—	92 W	1720 g
	21	SL LITE	SL JUNIOR BRAKE WIDE 90	9	32 (-8/+24)	ADULT	—	92 W	1400 g
	21	SL HEAD	SL BRAKE 78	3.5	32 (-8/+24)	ADULT	—	92 W	1655 g
	21	SL HEAD	SL BRAKE 78	9	32 (-8/+24)	ADULT	—	92 W	1565 g
	21	LD	PB LD WIDE 85	3.5	24	ADULT	—	92 W	1960 g
	33	SL HEAD	SL BRAKE RAIL 78	1	—	ADULT	260-360 (290-390)	RF & RF LITE	1710 g
	31	SL LITE	SL JUNIOR BRAKE RAIL 78	3.5	8	ADULT	220-300 / 240-325	RF & RF LITE	1470 g
	21	SL LITE	SL JUNIOR BRAKE 72	3.5	32 (-8/+24)	ADULT	—	92 W	1490 g
	21	SL LITE	SL JUNIOR BRAKE 72	9	32 (-8/+24)	ADULT	—	92 W	1400 g
	21	SL JUNIOR	SL JUNIOR BRAKE 72	9.7	32 (-8/+24)	A / C	—	92 W	1420 g
	15	SL KID	SL KB 74	3.7	44	A / C	—	94 W	1210 g

## TYROLIA BINDING LINE 07/08

Model	Z-DIN	kg	lbs	Feature	AFD	Toe stand height	Toe system	Toe type	
COMPETITION									
FREEFLEX PRO 18 (X)	9-18	from 87	from 188	FREEFLEX PRO	TEFLON	12	RACE DIAGONAL	AERO	
RACE									
FREEFLEX PLUS 17	6-17	from 58	from 128	FREEFLEX PLUS	ABS	17.5	RACE DIAGONAL	AERO	
FREEFLEX PLUS 15	5-15	from 49	from 109	FREEFLEX PLUS	ABS	17.5	RACE DIAGONAL	AERO	
FREEFLEX PLUS 11	3-11	from 31	from 67	FREEFLEX PLUS	ABS	17.5	FULL DIAGONAL	LD	
RAILFLEX SYSTEM									
RFD 11	3-11	from 31	from 67	SPEEDRAIL	ABS	32	FULL DIAGONAL	SL	
RFD 11 DEMO	3-11	from 31	from 67	RAILFLEX DEMO	ABS	32	FULL DIAGONAL	SL	
RF 10	3-10	from 31	from 67	SPEEDRAIL	ABS	32	FULL DIAGONAL	SL	
RFL 9	2.5-9	from 26	from 57	RAILFLEX LITE	ABS	27.5	FULL DIAGONAL	SL LITE	
RFL 7.5	2-7.5	22-84	48-187	RAILFLEX LITE	ABS	27.5	FULL DIAGONAL	SL LITE	
RFL 4.5	0.75-4.5	10-48	22-105	RAILFLEX LITE	TEFLON	23.5	FULL DIAGONAL	SL KID	
LIGHT DIAGONAL									
LD 12 CYBER (Palmer)	3.5-12	from 36	from 79	CYBER FF	ABS	23.5	FULL DIAGONAL	LD	
LD 12	3.5-12	from 36	from 79	—	ABS	17.5	FULL DIAGONAL	LD	
LD 12 WIDE BRAKE	3.5-12	from 36	from 79	—	ABS	17.5	FULL DIAGONAL	LD	
SUPERLIGHT									
SL 110 CARVE ABS	3-11	from 31	from 67	CARVE FLEX	ABS	23.5	FULL DIAGONAL	SL	
SL 100 WIDE BRAKE	3-10	from 31	from 67	—	TEFLON	12	FULL DIAGONAL	SL	
SL 100	3-10	from 31	from 67	—	TEFLON	12	FULL DIAGONAL	SL	
JUNIOR									
SL 75	2-7.5	22-84	48-187	—	TEFLON	12	FULL DIAGONAL	SL LITE	
SL 70 AC	2-7	22-78	48-174	—	TEFLON	11.3	FULL DIAGONAL	SL JUNIOR	
SL 45	0.75-4.5	10-48	22-105	—	TEFLON	11.3	FULL DIAGONAL	SL KID	
PROMO									
SL 110	3-11	from 31	from 67	—	TEFLON	12	FULL DIAGONAL	SL	
SL 100	3-10	from 31	from 67	—	TEFLON	12	FULL DIAGONAL	SL	

# DATASHEET

	Heel stand height	Heel type	Brake type	Ramp angle (mm)	Length adjustment range (mm)	Boot sole type	Boot sole length (mm)	Drill template	Weight set
	17	RACE PRO	PB RACE PRO 17-78	5	32	ADULT	255-375	92 W	3030 g
	21	DIAGONAL	PB LD 78	3.5	24	ADULT	257-362	92 W	2720 g
	21	DIAGONAL	PB LD 78	3.5	24	ADULT	257-362	92 W	2720 g
	21	CONTROL	PB LD 78	3.5	24	ADULT	257-362	92 W	2345 g
	35	LD	PB LD RAIL 80	3	—	ADULT	260-360 (290-390)	RF & RF LITE	2320 g
	35	LD	PB LD RAIL 80	3	100	ADULT	263-363	RF & RF LITE	2560 g
	33	SL	SL BRAKE RAIL 78	1	—	ADULT	260-360 (290-390)	RF & RF LITE	1960 g
	31	SL LITE	SL JUNIOR BRAKE RAIL 78	3.5	8	ADULT	220-300 / 240-325	RF & RF LITE	1470 g
	31	SL LITE	SL JUNIOR BRAKE RAIL 78	3.5	8	ADULT	220-300 / 240-325	RF & RF LITE	1460 g
	31	SL KID	SL KB RAIL 74	7.5	8	A / C	220-300 / 240-325	RF & RF LITE	1305 g
	31	LD	PB LD 78	7.5	24	ADULT	—	92 W	2540 g
	21	LD	PB LD 78	3.5	24	ADULT	—	92 W	2100 g
	21	LD	PB LD WIDE 93	3.5	24	ADULT	—	92 W	2100 g
	31	SL	SL BRAKE 78	7.5	32 (-8/+24)	ADULT	—	92 W	1930 g
	21	SL	SL BRAKE WIDE 90	9	32 (-8/+24)	ADULT	—	92 W	1590 g
	21	SL	SL BRAKE 78	9	32 (-8/+24)	ADULT	—	92 W	1590 g
	21	SL LITE	SL JUNIOR BRAKE 72	9	32 (-8/+24)	ADULT	—	92 W	1420 g
	21	SL JUNIOR	SL JUNIOR BRAKE 72	9.7	32 (-8/+24)	A / C	—	92 W	1420 g
	15	SL KID	SL KB 74	3.7	44	A / C	—	94 W	1210 g
	21	SL	SL BRAKE 78	9	32 (-8/+24)	ADULT	—	92 W	1570 g
	21	SL	SL BRAKE 78	9	32 (-8/+24)	ADULT	—	92 W	1570 g

## PARTS-REFERENCE CHART RETAIL



### TOE PIECE

- 1 Adjustment screw
- 2 Visual indicator
- 3 ABS
- 4 AFD-Teflon
- 5 Toe cover
- 6 Stand height adjustment (A/C boots)
- 7 Wings

### HEEL PIECE

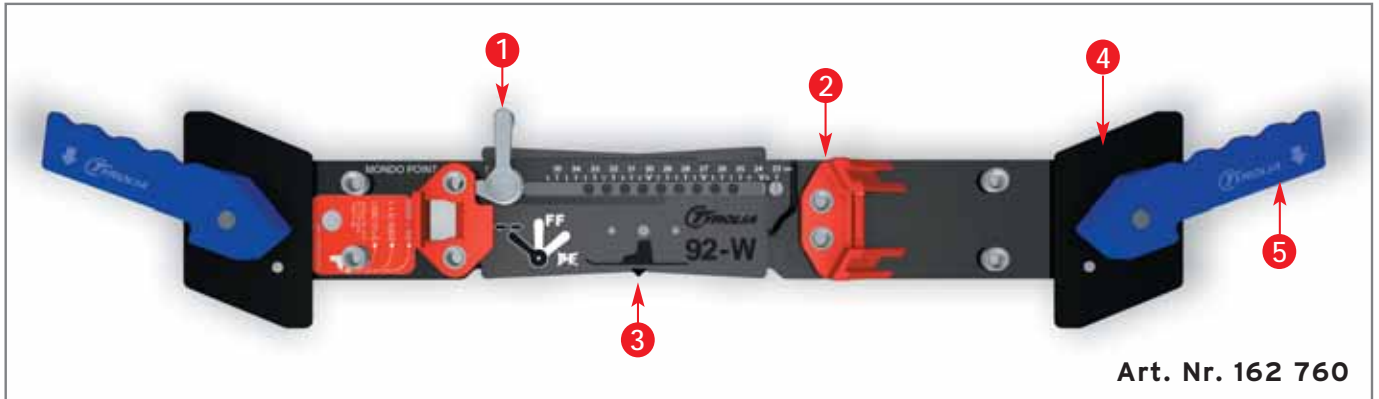
- 8 Brake treadle
- 9 Brake arms
- 10 Heel lever
- 11 Heel cover
- 12 Sole lug
- 13 Heel housing
- 14 Adjustment screw
- 15 Visual indicator

### MID PARTS

- 16 FREEFLEX Plus activation
- 17 SPEEDRAIL lever
- 18 Cyber bridge
- 19 RAILFLEX Demo lever
- 20 Single Code scale
- 21 Carve bridge



# DRILL TEMPLATE 92 W



Art. Nr. 162 760

## 1. COMPATIBILITY

Presently the drill template 92 W is valid for:

### HEAD BINDINGS:

FREEFLEX PRO 18 (X),	MOJO 7,
FREEFLEX PLUS 17,	SL110 ABS,
FREEFLEX PLUS 14,	SL100,
FREEFLEX PLUS 11,	SL 75 ABS,
LD 12 CYBER,	SL 75,
LD 12,	SL 70 AC,
GOLD THANG 12 LD	CARVE PLATE 13 SLR,
MOJO 20 (X),	CARVE PLATE 9 SLR,
MOJO 15,	HEAD PLATE 14
MOJO 11,	

### TYROLIA BINDINGS:

FREEFLEX PRO 18 (X),	SL100,
FREEFLEX PLUS 17,	SL 75,
FREEFLEX PLUS 15,	SL 70 AC,
FREEFLEX PLUS 11,	CARVE PLATE 13 SLR,
LD 12 CYBER,	CARVE PLATE 9 SLR,
LD 12,	JUNIOR PLATE 11
SL110 CARVE ABS,	

All HEAD/TYROLIA adult bindings can be used with skis 140 cm and longer. The junior bindings (DIN 7/7.5) are delivered with screws for skis shorter than 140 cm. If they are mounted on skis longer than 140 cm or on HEAD/TYROLIA Carve plates, replace them with longer screws (see screw chart in this manual-page 50/51).

Drill template 92 W can be used for ski widths from 59 mm to 108 mm. For other skis use the template adapter set (art. nr. 162 569). With this adapter set, skis from 45 to 132 mm can be mounted.

**NOTE:** HEAD/TYROLIA offers different types of brakes. Refer to the brake overview on 56-59 for brake and binding compatibility.

The Description of the brakes always includes a number like 72, 78, 90, 93, 115, and so on .... This number stands for the maximum ski width in the brake area and not in the ski center!!!

## 2. ADJUSTING THE DRILL TEMPLATE

There are 3 different mounting procedures for template 92 W. One for FREEFLEX and CYBER, one for CARVE and TWO PIECE bindings (other bindings) and one for CARVE PLATES.

To adjust the template unlock the locking lever (1) by rotating it counter-clockwise to the far left position.

## FREEFLEX PLUS and CYBER:

**NOTE:** Due to the center piece these bindings are limited to ski boots with sole lengths from 257 to 362 mm.

Place the ski boot in the template and push the template together until the stops (2) come against the ski boot sole. Take the boot out of the template. Position the locking lever (1) in the mid position, then open or close the template to the nearest centimeter mark.

## FOR OTHER BINDINGS:

Place the ski boot in the template and push the template together until the stops (2) come against the ski boot sole. Lock the lever to the far right position to prevent length change, then take the boot out of the template.

**FOR CARVE PLATES:** see page 52.

## 3. POSITIONING OF THE DRILL TEMPLATE

Open the clamping jaws (4) of the template by rotating the clamping handles (5) and then place template correctly on the ski, with the boot midsole indicator (3) aligned with the mounting mark on the ski. Be sure the template is evenly seated against the ski's top surface. Release clamping handles to attach the template to the ski.

Check the boot midsole mark with template mark. If they are not the same use the boot midsole mark to align the template with the ski mounting mark.

**NOTE:** Keep in mind that some ski manufacturers do not use the center of boot sole location method. Always follow their instructions.

## 4. DRILLING THE HOLES

If not otherwise specified by the ski manufacturer, use a 4.1 Ø x 9.0 mm drill bit. Use a 4.1 Ø x 7.0 mm drill bit for skis that are shorter than 140 cm. Drill the holes using the appropriate drill bit. If required by the ski manufacturer, tap the holes. After drilling place a drop of HEAD/TYROLIA glue in each hole. It lubricates the screws and seals the holes (pict 1).



## 5. MOUNTING

### FOR FREEFLEX PLUS:

Connect the two parts of the FREEFLEX-bridge. The pins must face up and lock in the slots (pict 2).

pict 2



Place the heel and the FREEFLEX band over the prepared holes and fasten the four screws.

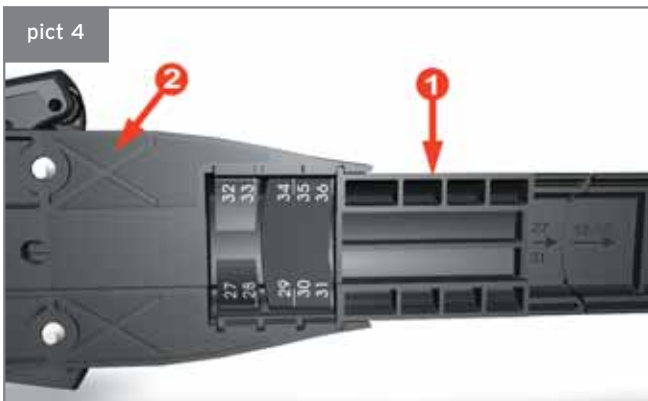
**NOTE:** For drill template positions up to 31 cm the FREEFLEX -band cover has to be shortened. For template positions 32 cm and up no shortening is needed (pict 3).

pict 3



Connect the FREEFLEX-band cover (1) with the toe base plate (2) at the position shown on the drill template boot length indicator (see pict 4).

pict 4



Slide the connected parts into the heel plate (1) until the mounting holes for the toe are aligned with the prepared holes in the ski. Connect the toe base plate with the FREEFLEX-band (see pict 5).



pict 5

Place the toe over the holes and drive the screws. Peel off the sticker which indicates the activation of the FREEFLEX function. Turn the eccentric screw (1) 180° clockwise as it is shown on the sticker (see pict 6).

pict 6



Turning the eccentric screw activates the FREEFLEX PLUS function. Always deactivate the FREEFLEX PLUS function before dismounting the binding.

### FOR LD 12 CYBER:

Connect the LD CYBER bridge with the CYBER toe base plate according to centimeter mark from the drill template. The arrow (2) on the CYBER bridge should point to the selected centimeter mark (pict 7).

pict 7



Carefully place the toe with the attached CYBER bridge over the prepared holes and fasten the screws. Attach the heel to the CYBER bridge by placing the steel hook located below the ski brake into the rear slot of the bridge. It is important that you just insert the rear heel screws and then the front.

#### FOR SL 110 CARVE ABS:

Connect the Carve-Flex-Mid-plate with tab located under the heel base plate (pict 8).



Place the assembly over the prepared holes and fasten the screws. Place the toe over the Carve-Flex-Mid-Plate and the drilled holes and fasten the screws. Drive the rear screws first, then the front screws.

#### FOR OTHER BINDINGS:

Place the binding over the predrilled holes and drive the screws.

### 6. FORWARD PRESSURE

Check to make sure the boot meets international standards and is not damaged.

Place the boot in the binding and close it. The indicating pointer should rest within the scribed area (pict 9) if not, you have to adjust the forward pressure.

**DON'T OPEN THE LENGTH ADJUSTMENT LOCK AS LONG AS A SKI BOOT IS FIXED IN THE BINDING.**

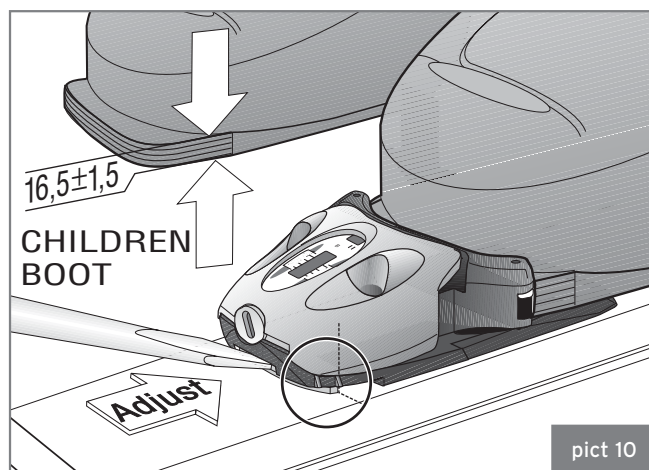
Place the ski boot in the open binding and rest the boot heel on the brake treadle. Lift the length adjustment lock (2) with a screwdriver and slide the heel until the heel cup just touches the boot. Lock the length adjustment by pushing it down. Latch the boot in the binding and check forward pressure again. The toe pincers should not be pressed open and the indicating pointer should rest within the scribed area (pict 9).



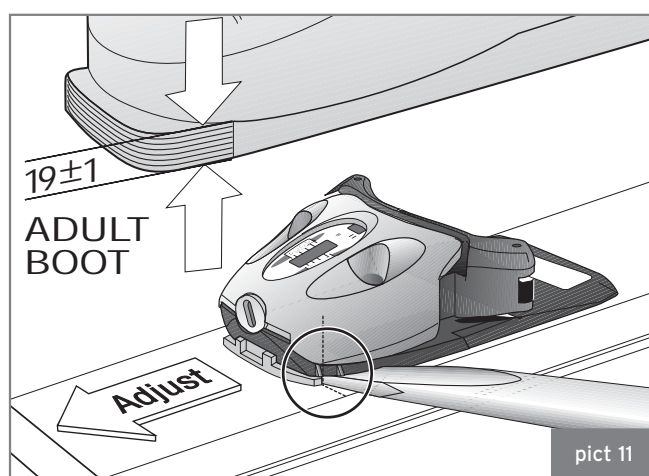
### 7. ADJUSTING THE TOE UNIT - SL 70 AC

The SL 70 AC is the only junior binding, which is for both ski boots type A-adult and ski boots type C-children. All other junior and adult bindings are only for ski boots type A-adult.

The toe sole lug of the SL 70 AC is pre-adjusted for ski boots type A-adult. If ski boots type C-children are used, use a screwdriver to push the wedge down under the toe unit up to the stop (pict 10).



To readjust the toe for ski boots type A-adult push the wedge back to its original position (pict 11).



### 8. ADJUSTING THE RELEASE VALUES

The release values of the toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws. We recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

**NOTE:** Release/retention settings above a release moment of 100 NM at the toe and 400 NM at the heel are higher than the international standards recommend and are used solely at the skier's own risk!

### 9. FUNCTION CHECK

**ENTRY/EXIT:** Check to make sure that the boot does not catch on the heel hold down lug.

**BRAKE:** press the brake treadle (1) down by hand (pict 12 and 13).





The brake arms (2) must automatically return to the braking position when the treadle is released.

#### LATERAL ELASTICITY OF THE TOE:

Press the boot laterally outward. The binding must re-center the boot easily and quickly from a 15 mm lateral displacement (junior bindings - 10 mm).

#### 10. FINAL CHECK

- Has the proper mounting point been selected?
- Functional brake test passed?
- Have all screws been fastened tightly?
- Has the forward pressure been properly set?
- Are the release values of the toe and heel properly determined and set?
- Is the instruction for use booklet ready to be handed over to the consumer?



# DRILL TEMPLATE RAILFLEX & RAILFLEX LITE



## 1. COMPATIBILITY

Presently the drill template Railflex & Railflex Lite is valid for:

### HEAD BINDINGS:

#### RAILFLEX BASE II:

RFD 14,  
RFD 12,  
RF 11  
RFD 14 DEMO,  
RFD 11 DEMO  
SURE THANG 9 RF

#### RAILFLEX LITE BASE:

LITE THANG 9 RFL  
RFL 7.5  
RFL 4.5

### TYROLIA BINDINGS:

#### RAILFLEX BASE II:

RFD 11,  
RF 10,  
RFD 11 DEMO

#### RAILFLEX LITE BASE:

RFL 9  
RFL 7.5  
RFL 4.5

Drill template RAILFLEX & RAILFLEX LITE is for mounting of both RAILFLEX BASE and RAILFLEX LITE BASE, if they are not already premounted.

Drill template Railflex & Railflex Lite can be used for ski widths from 59 to 108 mm. For other skis use the template adapter set (art. nr. 162 569). With this adapter set skis from 45 to 132 mm can be mounted.

## RAILFLEX SYSTEM II - SPEED RAIL

All HEAD/TYROLIA RAILFLEX SYSTEM II bindings can be used with skis measuring 140 cm and longer.

Beginning in season 2007/08, all RAILFLEX System II bindings will be equipped with the new SPEEDRAIL band. Now it is possible to adjust the binding to the boot sole length directly on the ski, and do so without any screws. You can use this system also for DEMO purposes, but for on snow demos we still recommend the RAILFLEX DEMO bindings.

The SPEEDRAIL band is for boot sole lengths from 260-360 mm. For longer boot soles we still offer the longer RAILFLEX band as a spare part.

This band is for boot soles from 290-390 mm, but doesn't offer the feature BOOT CENTER ADJUSTMENT (+15 / 0 / -15).

**NOTE:** HEAD/TYROLIA offers different types of brakes for RAILFLEX SYSTEM II bindings.

Refer to the brake overview on page 56-59 for brake and binding compatibility.

The Description of the brakes always includes a number like 72, 78, 90, 93 or 115. This number stands for the maximum ski width in the brake area and not in the ski center!!!

## RAILFLEX LITE SYSTEM

HEAD/TYROLIA offers two versions of the RAILFLEX LITE band. The appropriate band is delivered with the RAILFLEX LITE BASE or is premounted on the integrated HEAD ski.

	Band version	
	short	long
Spare part number	162757	162758
Ski length (Recommendation)	under 127cm	127cm and longer
Boot sole length	220-300 mm	240-325 mm
Mondo size	17.0-25.5	19.5-27.5

**NOTE:** For skis under 140 cm we are offering the RAILFLEX LITE BASE with short screws (penetration depth: 6 mm) and for skis of 140 cm and longer with long screws (penetration depth: 8 mm). Choose the right screw length according to the ski length (see screw chart on page 61-63).

## 2. POSITIONING THE DRILL TEMPLATE

Open the clamping jaws (2) by rotating the clamping handles (1) and then place the template on the ski.

Align the boot midsole indicator (3) for the appropriate base model with the midsole mounting mark on the ski. Be sure the template is evenly seated against the ski's top surface. Release clamping handles.

**NOTE:** Keep in mind that some ski manufacturers do not use the center of boot sole location method. Always follow the ski manufacturer's instructions.

## 3. DRILLING THE HOLES

If not otherwise specified by the ski manufacturer use for all bases a 4.1 Ø x 9.0 mm drill bit for skis 140 cm and longer. For skis shorter than 140 cm use a 4.1 Ø x 7.0 mm drill bit.

### DRILL THROUGH THE APPROPRIATE BUSHINGS:

Model	Color of indicator
Railflex Base	silver
Railflex Lite Base	black

After drilling place a drop of TYROLIA glue into the holes. It lubricates the screws and seals the holes (pict 14).



pict 14



## 4. MOUNTING - BASES

### RAILFLEX BASE

Place the front section of the RAILFLEX BASE over the holes and tighten the screws. Then place the rear section over the holes and tighten the screws as well (pict 15).

pict 15



Cover the RAILFLEX BASE with the appropriate covers (pict 16).

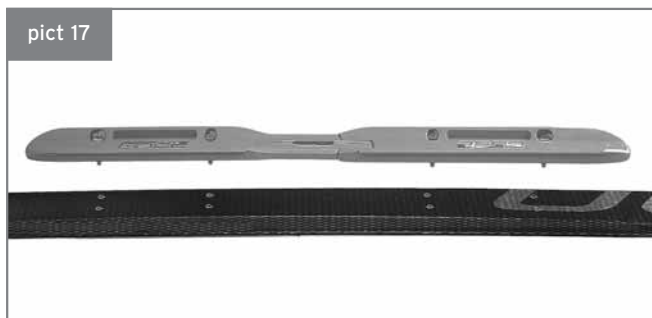
pict 16



### RAILFLEX LITE BASE

Place the front section of the RAILFLEX LITE BASE over the holes and tighten the screws. Repeat the same procedure with the rear section of the base (pict 17).

pict 17



## 5. MOUNTING - BINDINGS

### RAILFLEX SYSTEM II - SPEEDRAIL

Make sure that the boot is satisfying the international standards and has no functional damage.

Take the binding parts out of the box and follow the steps on the instruction leaflet.

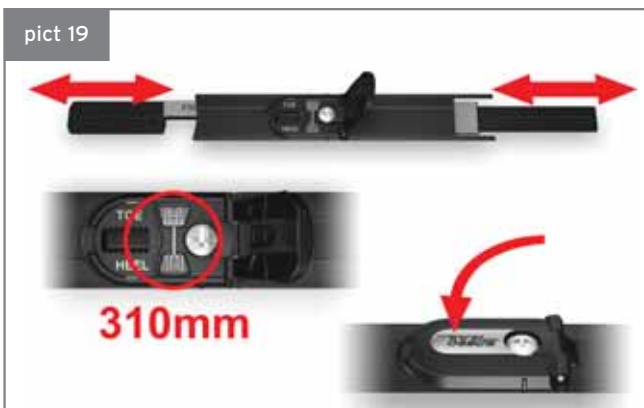
Determine the boot sole length with the HEAD/TYROLIA rental calliper (art.nr. 162 617).

pict 18



Adjust the band to the closest sole mark and lock it by closing the lever in the centre position.

pict 19



Now hook the brake into the heel housing.

pict 20



Then you can also hook the band into the heel and into the toe - there is only one position possible.

pict 21



Now slide the binding on the RAILFLEX base from the rear until the mark on the band cover is aligned with the selected mark on the center piece (+15/0/-15). Make sure that all components of the binding are engaged with the base. Then fix the binding position by tightening the screw in the center piece.

pict 22



pict 23



Finally put a boot into the binding and check the **forward pressure**. If you followed each step correctly, the indicator should rest in the marked area.

pict 24



If you have too much or not enough forward pressure, open the lever in the centre with a slotted screwdriver and check the settings. If necessary, adjust slightly at the heel and the toe. Then close the lever and check the forward pressure again. Now it should be okay.

Once the binding is mounted onto a ski it is very easy to adjust it to another boot sole length. Just open the lever in the center and slide toe and heel to the desired centimetre mark.

pict 25



Finally close the lever and check forward pressure as described before.

### RAILFLEX SYSTEM II - DEMO

Make sure that the boot is satisfying the international standards and has no functional damage.

Hook the brake into the heel housing as shown in pict 26.

pict 26



Connect toe and heel with the Railflex Demo Band by snapping the metal pins of the toe in the band (pict 27).

pict 27

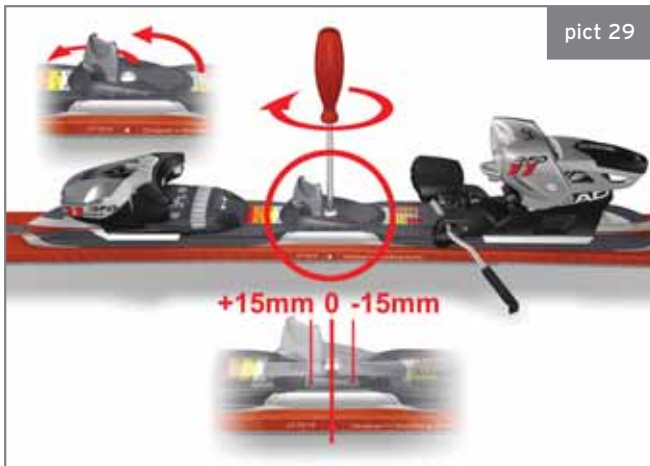


Slide the binding on the RAILFLEX base from the rear until the mark on the band cover is aligned with the selected mark on the center piece (+15/0/-15). Make sure that all components of the binding are engaged with the base. Then fix the binding position by tightening the screw in the center piece.

pict 28



pict 29



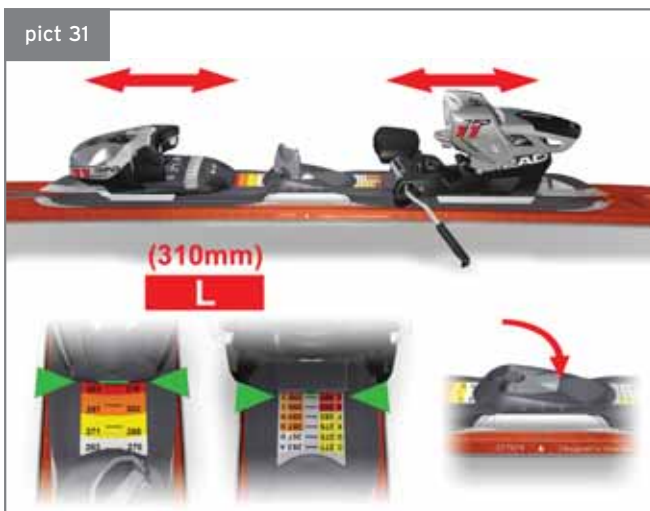
Determine the boot sole length with the HEAD/TYROLIA Rental calliper (art.nr. 162617) (pict 30).

pict 30



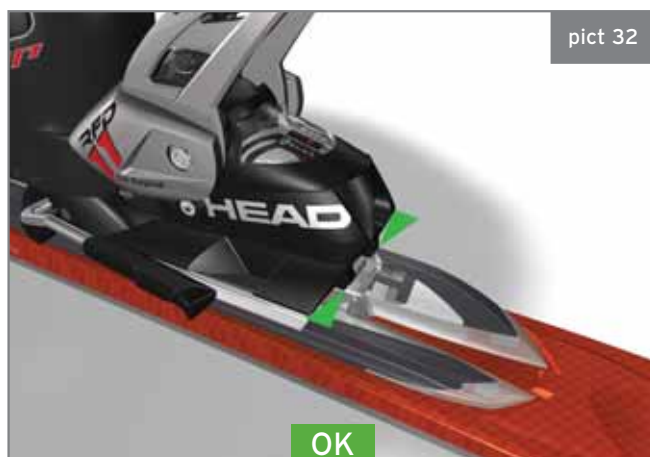
Lift the locking lever of the binding, located in the center piece and turn it 45° counterclockwise to adjust the sole length. Slide toe and heel to the position visible on the sticker on the band. Lock the system by turning the locking lever to its original position (pict 31).

pict 31



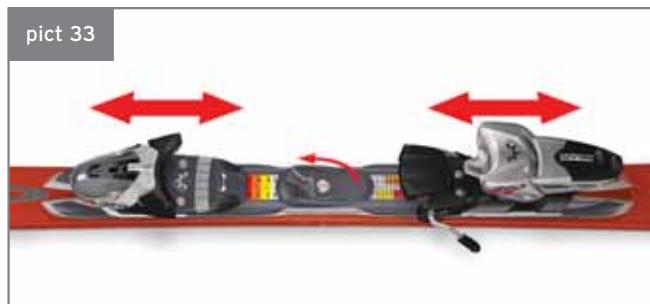
Finally put a boot into the binding and check the forward pressure. If you followed each step correctly, the indicator should rest in the marked area.

pict 32



If you have too much or not enough forward pressure, check the settings. If necessary open the lever in the centre, adjust slightly at the heel and the toe. Then close the lever and check the forward pressure again. Now it should be okay.

pict 33



## RAILFLEX LITE SYSTEM

Make sure that the boot is satisfying the international standards and has no functional damage.

Take the binding parts out of the box and follow the steps on the instruction leaflet.

Determine the boot sole length with the HEAD/TYROLIA rental calliper (art.nr. 162617).

pict 34



Hook the brake into the heel housing.

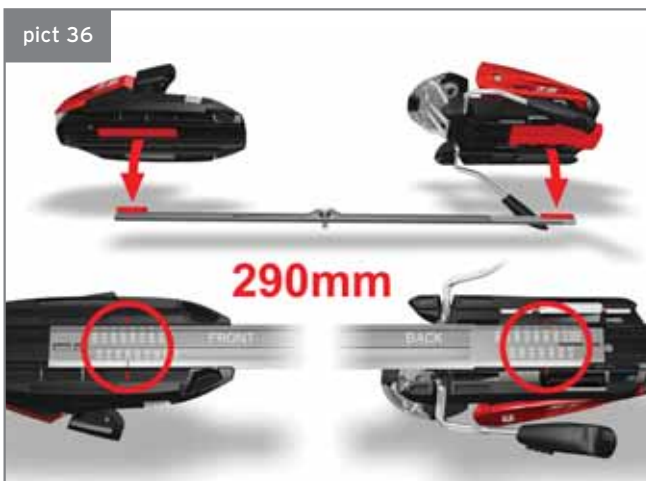


pict 35



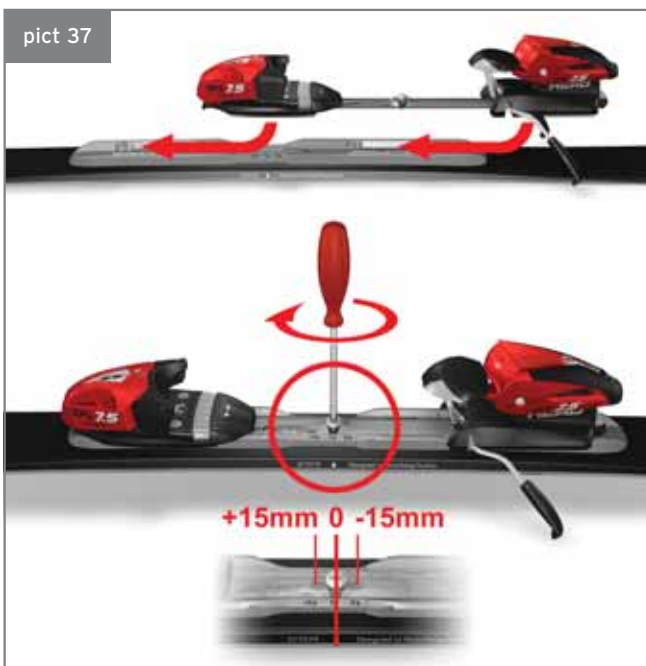
Connect the toe and heel with the RAILFLEX LITE band at the closest sole length mark corresponding to the measured boot sole length (pict 36).

pict 36



Slide the binding on the RAILFLEX base from the rear until the mark on the band cover is aligned with the center mark. The feature BOOT CENTER ADJUSTMENT (+15/0/-15) is only available if a RAILFLEX LITE binding is used in combination with the RAILFLEX LITE base. At the integrated version this feature is not available. Make sure that all components of the binding are engaged with the base. Then fix the binding position by tightening the screw in the center piece (pict 37).

pict 37



Finally put a boot into the binding and check the **forward pressure**. If you followed each step correctly, the indicator should rest in the marked area.

pict 38



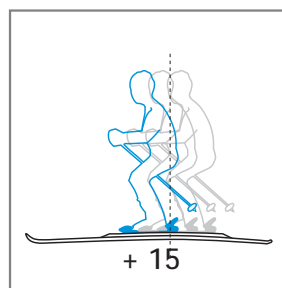
If you have too much or not enough forward pressure, open the adjustment lock at the heel with a slotted screwdriver. The adjustment range is  $\pm 4$  mm. Then close the lock and check the forward pressure again. Now it should be okay.

pict 39



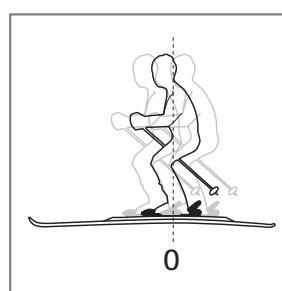
## 6. BOOT CENTER ADJUSTMENT

Depending on the position selected the skiing behavior of the system is different (see below).



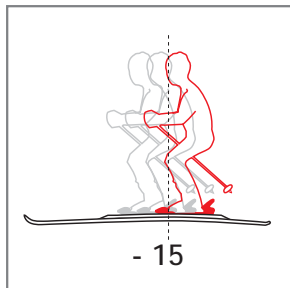
### 1. Moderate Speed + 15mm

The center of the body is shifted to the front. The ski reacts earlier and can be controlled easily. Good for skiers preferring moderate speeds.



### 2. All-around 0 mm

Neutral adjustment for optimal all around-performance. For every skier!



### 3. Experts - 15mm

By shifting the center of the body backwards, the ski is more stable. Better speed at the end of the run.  
For experts and terrain skiers.

## 7. ADJUSTMENT OF THE RELEASE VALUES

The release values at toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws. We recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

**NOTE:** Release/ Retention settings above a release moment of 100 NM at the toe and 400 NM at the heel are higher than the international standards recommend and are used solely at the skier's own risk!

## 8. FUNCTION CHECK

Check the function of the heel. Make sure that the boot does not catch on the heel during entry and exit.

Check the brake function by pressing down the brake treadle (1) by hand. The brake arms (2) must open to the braking position when the brake treadle is released (see pict 40 and 41).



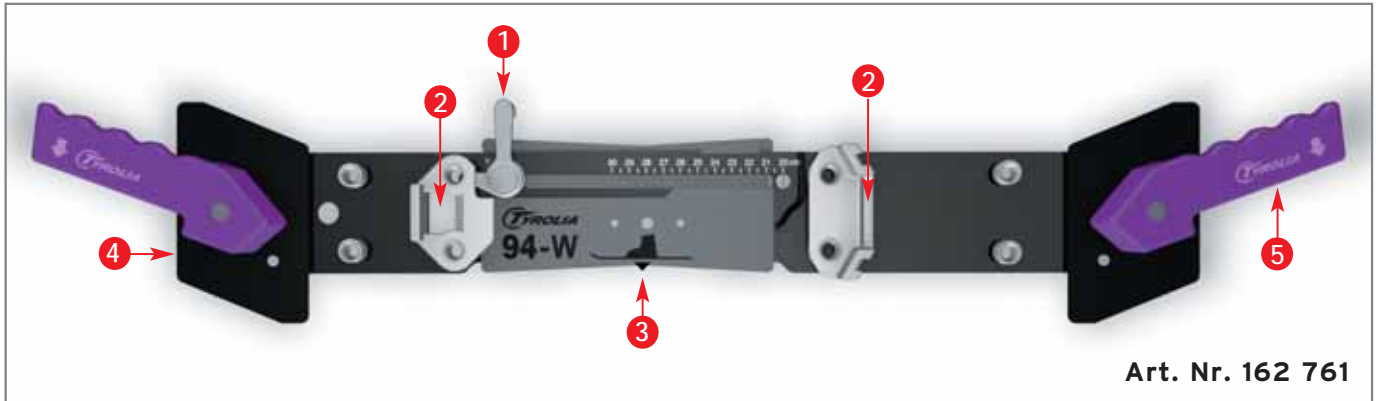
Check the elasticity and retention of the toe by pushing the boot inward and outward. The binding must recenter the boot easily and quickly from a 15 mm lateral displacement. (RFL 7.5, RFL 4.5 - 10 mm).

## 9. FINAL CHECK

- Is the proper mounting point selected?
- Functional brake test passed?
- Are all screws fastened tightly?
- Is the forward pressure properly adjusted?
- Are the release values of toe and heel properly determined and set?
- Is the Instruction for use booklet ready to be handed over to the customer?



# DRILL TEMPLATE 94 W



Art. Nr. 162 761

## 1. COMPATIBILITY

Presently the drill template 94 W is valid for:

**HEAD BINDINGS:**  
SL 45

**TYROLIA BINDINGS:**  
SL 45

This binding can be used for children's skis shorter than 140 cm. The standard brake, the SL KID BRAKE 74 (art.nr. 162 399), can be used for skis up to 74 mm, for wider skis use the SL KID BRAKE wide 84 (art.nr. 162 658), which is for skis from 74 to 84 mm.

**NOTE:** HEAD/TYROLIA offers different types of brakes. Refer to the brake overview on page 56-59 for brake and binding compatibility.

The description of the brakes always includes a number like 74 or 84. This number stands for the maximum ski width in the brake area and not in the ski center!!!

## 2. ADJUSTING THE DRILL TEMPLATE

Unlock the locking lever (1) by rotating it counter-clockwise. Place the template on the ski. Place the ski boot in the template. Push the template together until the stops are against the sole (2).

Lock the lever (1) to prevent length change and take the boot out of the template.

## 3. POSITIONING OF THE DRILL TEMPLATE

Align the boot midsole indicator (3) with the midsole mounting mark on the ski. Be sure the template is evenly seated against the ski's top surface.

Check the boot midsole mark with template mark. If they are not the same use the boot midsole mark to align the template with the ski mounting mark.

**NOTE:** Some ski manufacturers do not use the center of boot sole location method. Always follow the ski manufacturer's instructions.

## 4. DRILLING THE HOLES

If not otherwise specified by the ski manufacturer, use a 4,1 Ø x 7,0 mm drill bit. Drill the holes using appropriate TYROLIA drill. If required by the ski manufacturer, tap the hole. Place a drop of TYROLIA glue into the holes. It lubricates the screws and seals the ski. (pict 42).

pict 42



## 5. MOUNTING

Place toe unit over the holes and fasten the screws in a X-pattern. Then do the same for the heel.

## 6. FORWARD PRESSURE

Place the boot in the binding and close it. The indicating pointer should rest within the scribed area (pict 43), if not you have to adjust the forward pressure.

**DON'T OPEN THE LENGTH ADJUSTMENT LOCK AS LONG AS A SKI BOOT IS FIXED IN THE BINDING.**

Place the ski boot in the open binding and rest the boot heel on the brake treadle. Lift the length adjustment lock (2) with a screwdriver and slide the heel until the heel cup just touches the boot. Lock the length adjustment by pushing it down. Latch the boot in the binding and check forward pressure again. The toe piners should not be pressed open and the indicating pointer should rest within the scribed area (pict 43).

pict 43



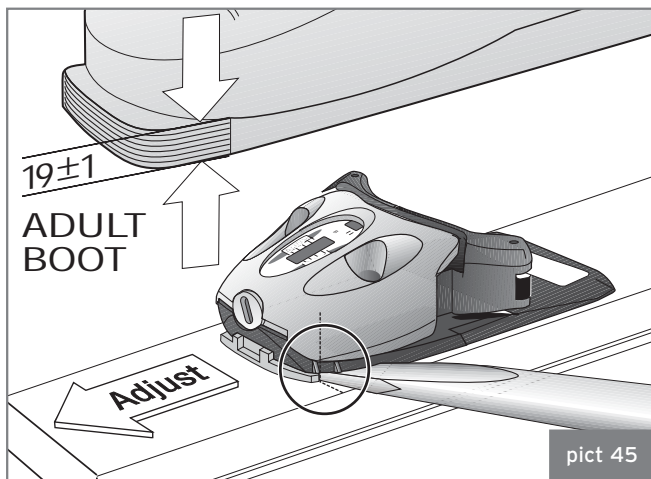
## 7. ADJUSTMENT

Check to make sure that the boot meets international standards and is not damaged.

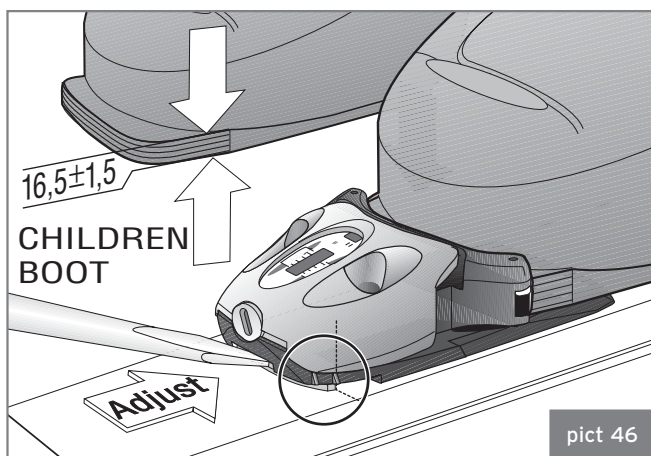


### ADJUSTING THE TOE UNIT:

The toe sole lug is pre-adjusted for ski boots type C-children. If ski boots type A-adult are used, use a screwdriver to push the wedge forward up to the stop (pict 45).



Use a screwdriver to return the wedge to the type C-children position (pict 46).



### ADJUSTING THE RELEASE VALUES

The release values at toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws.

We recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

## 8. FUNCTION CHECK

**ENTRY/EXIT:** Check to make sure that the boot does not catch on the heel hold down lug.

**BRAKE:** press the brake treadle (1) down by hand. The brake arms (2) must automatically return to the braking position when the treadle is released (pict 47).



### LATERAL ELASTICITY OF THE TOE:

Press the boot laterally outward. The binding must re-center the boot easily and quickly from a 10 mm lateral displacement.

## 9. FINAL CHECK

- Has the proper mounting point been selected?
- Functional brake test passed?
- Have all screws been fastened tightly?
- Has the forward pressure been properly set?
- Are the release values of the toe and heel properly determined and set?
- Is the instruction for use booklet ready to be handed over to the consumer?

# RENTAL BINDINGS



## TYROLIA RENTAL LINE 07/08

Model	Z-DIN	kg	lbs	AFD	Toe stand height	Toe system	Toe type	Heel stand height	Heel type	
SP 130 ABS DEMO AERO	4-13	from 42	from 92	ABS	26	RACE DIAGONAL	AERO OT	31	CONTROL OT	
SP 120 ABS	4-12	from 42	from 92	ABS	26	FULL DIAGONAL	LD OT	31	CONTROL OT	
SP 120 ABS WIDE BRAKE	4-12	from 42	from 92	ABS	26	FULL DIAGONAL	LD OT	31	CONTROL OT	
SP 100 ABS	2.5-10	from 26	from 57	ABS	26	FULL DIAGONAL	SL OT	31	CONTROL OT	
SP 100 ABS HEAD	2.5-10	from 26	from 57	ABS	26	FULL DIAGONAL	SL OT	31	CONTROL OT	
SP 90 ABS	2.5-9	from 26	from 57	ABS	26	FULL DIAGONAL	SL LITE OT	31	CONTROL OT	
SP 75 ABS	1.5-7.5	18-84	39-187	ABS	26	FULL DIAGONAL	SL LITE OT	31	CONTROL OT	
SP 45	0.75-4.5	10-48	22-105	TEFLON	24	FULL DIAGONAL	SL KID OT	25	SL KID OT	
SR 100	2.5-10	from 26	from 57	TEFLON	15.5	FULL DIAGONAL	SL	22	CONTROL OT	
SR 70	2-7	22-78	48-174	TEFLON	15.5	FULL DIAGONAL	SL JUNIOR	22	CONTROL J OT	
SR 45	0.75-4.5	10-48	22-105	TEFLON	13.5	FULL DIAGONAL	SL KID	15	SL KID OT	
BYS 100	2.5-10	from 26	from 67	ABS	17.5	FULL DIAGONAL	SL	21	CONTROL	

# DATASHEET

	Brake type	Ramp angle (mm)	Length adjustment range (mm)	Single Code	Mondo-point	Boot sole type	Boot sole length (mm)	Drill template	Drill template adjustment	Weight set
	PB LD 78	5	Toe: 64/Heel: 60	A-6	22.5-36	ADULT	263-391	SP 2003 W	yellow bushings	2660 g
	PB LD 78	5	Toe: 64/Heel: 60	A-6	22.5-36	ADULT	263-391	SP 2003 W	yellow bushings	2600 g
	PB LD WIDE 93	5	Toe: 64/Heel: 60	A-6	22.5-36	ADULT	263-391	SP 2003 W	yellow bushings	2600 g
	PB LD 78	5	Toe: 64/Heel: 60	A-6	22.5-36	ADULT	263-391	SP 2003 W	yellow bushings	2470 g
	PB LD FAT 115	5	Toe: 64/Heel: 60	A-6	22.5-36	ADULT	263-391	SP 2003 W	yellow bushings	2470 g
	PB LD 78	5	Toe: 40/Heel: 36	A-T	22.5-30	ADULT	263-343	SP 2003 W	white bushings	2390 g
	PB LD 78	5	Toe: 40/Heel: 36	A-T	22.5-30	ADULT	263-343	SP 2003 W	white bushings	2390 g
	SL KB SYMPRO 74	1	Toe: 40/Heel: 52	a-w/F	15.0-24.5	A / C	190-286	SP 2003 W	red bushings	1670 g
	PB SR	6.5	Heel: 84	A-V	22.5-31	ADULT	263-351	SR 2003 W	yellow arrow	2020 g
	PB LD 78	6.5	Heel: 76	i-J	19-26.5	A / C	227-303	SR 2003 W	white arrow	1875 g
				* q-R	22-29.5	A / C	259-335	SR 2003 W	blue arrow	
	SL KB 74	1.5	Heel: 52	b-o	15.5-21.5	A / C	199-255	SR 2003 W	red arrow	1260 g
				** j-w/F	19-24.5	A / C	231-287	SR 2003 W	green arrow	
	PB LD 78	3.5	—	Black Yellow Silver	B = 23-26.5 Y = 27-30.5 S = 32-34	ADULT	B = 289 Y = 329 S = 365	—	—	1770 g

\* Spare Part: 162 536

\*\* Spare Part: 162 538



## PARTS-REFERENCE CHART RENTAL



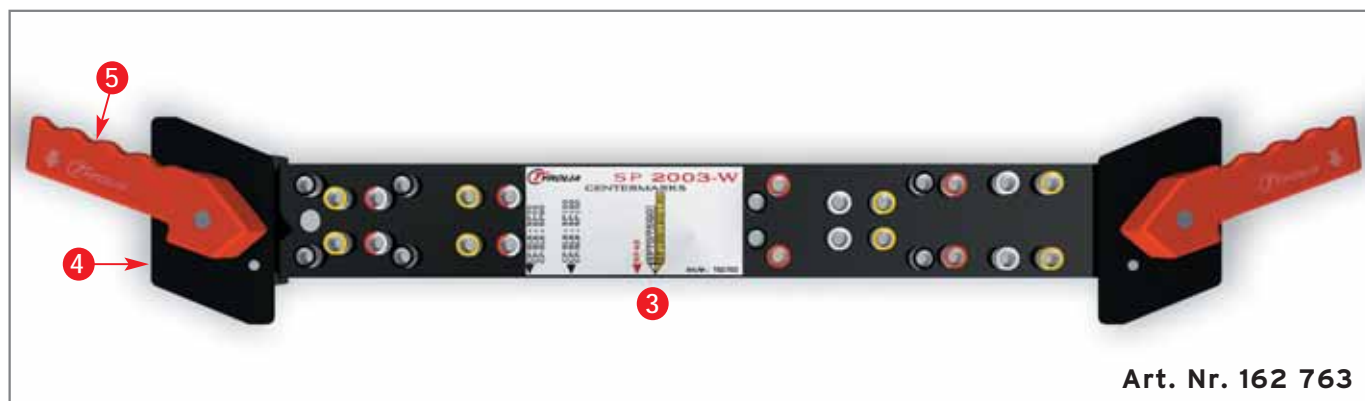
### TOE PIECE

- ① Adjustment screw
- ② Visual indicator
- ③ ABS
- ④ Color coded ABS (BYS)
- ⑤ AFD-Teflon
- ⑥ Toe cover
- ⑦ ONE TOUCH lever
- ⑧ Base Plate
- ⑨ Bar Code
- ⑩ Single Code scale

### HEEL PIECE

- ⑪ Brake treadle
- ⑫ Brake arms
- ⑬ Heel lever
- ⑭ Heel cover
- ⑮ Sole lug
- ⑯ Visual indicator
- ⑰ Heel housing
- ⑱ Adjustment screw
- ⑲ Single Code scale
- ⑳ ONE TOUCH lever

# DRILL TEMPLATE SP 2003 W



Art. Nr. 162 763

## 1. COMPATIBILITY

Presently the drill template SP 2003 W is valid for:

### TYROLIA BINDINGS:

SP 130 ABS DEMO AERO,  
SP 120 ABS,  
SP 120 ABS WIDE BRAKE,  
SP 100 ABS,  
SP 100 ABS HEAD,  
SP 90 ABS,  
SP 75 ABS,  
SP 45 ABS,  
CARVE PLATE 13 SLR,  
CARVE PLATE 9 SLR,  
JUNIOR PLATE 11,  
(Carve Plate only if mounted for Rental)

All TYROLIA adult bindings can be used with skis 140 cm and longer. The junior binding SP 75 ABS is delivered with screws for skis shorter than 140 cm. If it is mounted on skis longer than 140 cm or on TYROLIA CARVE plates, replace them with longer screws (see screw chart in this manual - page 50/51). SP 45 is only for skis under 140 cm. Drill template SP 2003 W can be used for ski widths from 59 to 108 mm. For other skis use the template adapter set (art. nr. 162 569). With this adapter set skis from 45 to 132 mm can be mounted.

**NOTE:** TYROLIA offers different types of brakes. Refer to the brake overview on page 56-59 for brake and binding compatibility.

The Description of the brakes always includes a number like 74, 78, 93 or 115. This number stands for the maximum ski width in the brake area and not in the ski center!!!

## 2. POSITIONING THE DRILL TEMPLATE

Open the clamping jaws (4) by rotating the clamping handles (5) and then place the template on the ski. Align the boot midsole indicator (3) for the appropriate binding model or Carve Plate with the midsole mounting mark on the ski. Be sure the template is evenly seated against the ski's top surface. Release the clamping handles (5) and attach the template firmly to the ski.

**NOTE:** Some ski manufactures do not use the center of boot sole location method. Always follow the ski manufacturer's instructions.

## 3. DRILLING THE HOLES

If not otherwise specified by the ski manufacturer, for all SYMPRO adult models use a 4,1 Ø x 9,0 mm drill bit for skis 140 cm and longer.

For SP 90 ABS, SP 75 ABS and SP 45 use a 4,1 Ø x 7,0 mm - drill bit for skis shorter than 140 cm. Drill through the appropriate bushings (see table).

Model	Color of Bushings
SP 130 ABS Demo Aero	Yellow
SP 120 ABS	Yellow
SP 100 ABS	Yellow
SP 90 ABS	White
SP 75 ABS	White
SP 45	Red
CARVE PLATES	Black



If required by the ski manufacturer, tap the hole. After drilling place a drop of TYROLIA glue into the holes. It lubricates the screws and seals the holes (pict 48).



## 4. MOUNTING

### MOUNTING THE TOE

Connect the plastic mid section (3) with the metal toe track (1). Place the assembled toe track (1) over the holes and drive the screws. Open the one touch latch (2) and slide the toe piece on from the front. Adjust the toe piece to the desired SINGLE CODE position and close the latch (2) (pict 49).

pict 49



Make sure that the lever snaps in place completely (it may be necessary to slide the toe forward and backwards slightly).

## MOUNTING THE HEEL

Place the heel unit with its brake, guide and track over the holes. Drive the screws in a X-pattern.

## 5. FORWARD PRESSURE CONTROL

Place a suitable reference boot in the binding using the SINGLE CODE for length adjustment and close it. Then check the indicator (see pict 50 located at the rear end of the heel piece. With boot inserted the pointer should rest in the middle of the scribed area.



pict 50

If necessary, readjust the boot sole length, check the SINGLE CODE.

**NOTE:** Always remove the boot from the binding before adjusting.

## 6. ADJUSTMENT

### FOR ALL MODELS

Find adjustment ranges and some handling hints in the "SYMPRENT / SYMPRO" section of the Technical Manual. Take at least one reference boot satisfying all standards and free of functional damages to perform test adjustments with the binding.

### USING THE SINGLE CODE

Adjust toe and heel to the corresponding alpha-setting (SINGLE CODE) of the ski boot (pict 51).



pict 51

## IF A BOOT OF UNKNOWN SIZE IS USED PROCEED AS FOLLOWS:

Place the boot in the toe cup. Slide the heel piece forward until it just touches the boot. Close the binding and check the forward pressure.

## ADJUSTING THE RELEASE VALUES

The release values at toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws. We recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

**NOTE:** Release/ Retention settings above a release moment of 100 NM at the toe and 400 NM at the heel are higher than the international standards recommend and are used solely at the skier's own risk!

## 7. FUNCTION CHECK

Before the newly mounted ski equipment is rented perform a complete functional check.

**NOTE:** In some countries (USA) rental equipment has to pass a Pre-Season Test (See the Rental section of this manual). The boot should not catch on the sole hold-down of the heel as it opens and closes.

### BRAKE

Press the step-on plate (1) down by hand. The brake arms (2) must close and open automatically to the braking position when the step-on plate is released (pict 52).



pict 52

## LATERAL ELASTICITY OF THE TOE

Press the boot laterally outward. The binding must re-center the boot easily and quickly from a 15mm lateral displacement. (Model SP 90 ABS, SP 75 ABS and SP 45 - 10 mm).

## 8. FINAL CHECK

- Has the proper mounting point been selected?
- Have all screws been fastened tightly?
- Has the forward pressure setting been controlled?
- Has at least one full adjustment been made using a representative reference boot including Release- / Retention setting and momentum test?
- Has the functional check been passed successfully?
- Functional brake test passed?

# DRILL TEMPLATE SR 2003 W



Art. Nr. 162 762

## 1. COMPATIBILITY

Presently the drill template SR 2003 W is valid for:

### TYROLIA BINDINGS:

SR 100,  
SR 70,  
SR 45,  
CARVE PLATE 13 SLR,  
CARVE PLATE 9 SLR,  
JUNIOR PLATE 11,  
(Carve Plate only if mounted for Rental)

SR 100 can be used with skis 140cm and longer. The junior binding SR 70 is delivered with screws for skis shorter than 140 cm. If it is mounted on skis longer than 140 cm or on TYROLIA CARVE plates, replace them with longer screws (see screw chart in this manual - page 50/51). SR 45 is only for skis under 140 cm.

Drill template SR 2003 W can be used for ski widths from 59 to 108 mm. For other skis use the template adapter set (art. nr. 162 569). With this adapter set skis from 45 to 132 mm can be mounted.

**NOTE:** TYROLIA offers different types of brakes. Refer to the brake overview on page 56-59 for brake and binding compatibility.

The Description of the brakes always includes a number like 74, 78, 93 or 115. This number stands for the maximum ski width in the brake area and not in the ski center!!!

## 2. POSITIONING THE DRILL TEMPLATE

Open the clamping jaws (4) by rotating the clamping handles (5) and then place template on the ski. Align the boot mid-sole indicator (3) for the appropriate binding model or Carve Plate with the midsole mounting mark on the ski. Be sure the template is evenly seated against the ski's top surface. Release clamping handles (5) and attach the template firmly to the ski.

**NOTE:** Some ski manufactures do not use the center of boot sole location method. Always follow the ski manufacturer's instructions.

## 3. DRILLING THE HOLES

If not otherwise specified by the ski manufacturer, for all SYMRENT adult models use a 4,1 Ø x 9,0 mm drill bit for skis 140 cm and longer. For ski shorter than 140 cm use a 4,1 Ø x 7,0 mm drill bit. Drill through the appropriate bushings (see table).

Model	Color of Indicator
SR 100	Yellow
SR 70 (Standard)	Blue (q-R)
SR 70 (Spare Part)	White (i-J)
SR 45 (Standard)	Red (b-o)
SR 45 (Spare Part)	Green (j-w/F)
CARVE PLATES	Black



If required by the ski manufacturer, tap the hole. After drilling place a drop of TYROLIA glue into the holes. It lubricates the screws and seals the holes (pict 53).



## 4. MOUNTING

### MOUNTING THE TOE

Place toe piece on the prepared holes and drive the screws.



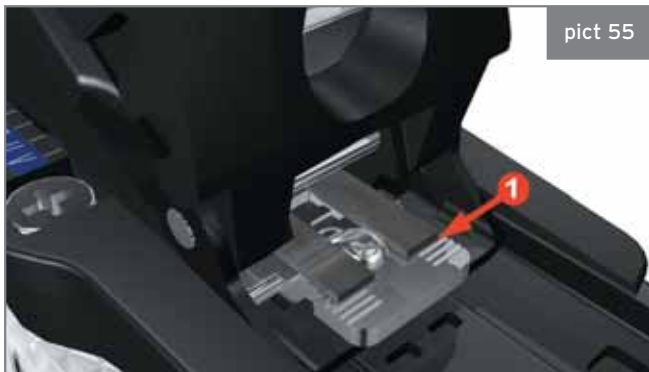


## MOUNTING THE HEEL

Place the heel unit with its brake, guide and track over the holes. Drive the rear screws first, then the front screws.

## 5. FORWARD PRESSURE CONTROL

Place a suitable reference boot in the binding using the SINGLE CODE for length adjustment and latch it. Then check the indicator (see pict 55) located at the rear end of the heel piece. With boot inserted the pointer should rest in the middle of the scribed area.



**NOTE:** If the forward pressure is not correct, readjust the boot sole length and check the SINGLE CODE. Please make sure that no boot is placed in the binding during adjusting!

## 6. ADJUSTMENT

### FOR ALL MODELS

Find adjustment ranges and some handling hints in the "SYMRENT" section of the Technical Manual. Take at least one reference boot satisfying all standards and free of functional damages to perform test adjustments with the binding.

### USING THE SINGLE CODE

Adjust the heel to the corresponding alphasetting (SINGLE CODE) of the ski boot (pict 56).



## IF A BOOT OF UNKNOWN SIZE IS USED PROCEED AS FOLLOWS:

Place the boot in the toe cup. Slide the heel piece forward until it just touches the boot. Close the binding and check the forward pressure.

### ADJUSTING THE RELEASE VALUES

The release values at toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws. We recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

**NOTE:** Release/ Retention settings above a release moment of 100 NM at the toe and 400 NM at the heel are higher than the international standards recommend and are used solely at the skier's own risk!

## 7. FUNCTION CHECK

Before newly mounted ski equipment is rented perform a complete functional check.

**NOTE:** In some countries (USA) rental equipment has to pass a Pre-Season Test (See the Rental section this manual). The boot should not catch on the sole hold-down of the heel as it opens and closes.

### BRAKE

Press the step-on plate (1) down by hand. The brake arms (2) must close and open automatically to the braking position when the step-on plate is released (pict 57).



### LATERAL ELASTICITY OF THE TOE

Press the boot laterally outward. The binding must re-center the boot easily and quickly from a 15mm lateral displacement. (Model SR 70 and SR 45 - 10 mm).

## 8. FINAL CHECK

- Has the proper mounting point been selected?
- Have all screws been fastened tightly?
- Has the forward pressure setting been controlled?
- Has at least one full adjustment been made using a representative reference boot including Release- / Retention setting and momentum test?
- Has the functional check been passed successfully?
- Functional brake test passed?



# SYMPRO-SYMRENT-SYSTEM 07/08

Performance, for a rental binding, is not only what happens on the hill. A key measure of a product's quality is the ease with which a system can be adjusted and maintained throughout the course of many seasons.

## THE TYROLIA'S MECHANIC-FRIENDLY RENTAL DESIGN FEATURES:

- Easy mounting: This means fewer mistakes and reduced set-up time.
- Easy pre-season testing, low drop-out rate.  
The automatic sole lug design and the precise centering of the toe pincer system mean: fewer correction factors will be needed and less time spent testing.
- The SINGLE CODE system gives you a super fast option for binding-to-boot adjustment: set the heel length using the special sole length scale. Forward pressure will be right on, first time, every time.
- All models have automatic lug height adjustment which accommodate standard differences in boot sole-height.
- Easy, hand-levered "ONE TOUCH"- set up. One tool adjustment, easy to turn adjustment screw, "easy-in" boot feature.
- Almost maintenance-free, easy to change the AFD, clean and lubricate the heel track.

TYROLIA made the commitment to offer a comprehensive product and service program.

## THE TYROLIA-RENTAL BINDINGS

No single rental binding can ever fulfill all the needs of all types of shops. We therefore offer the following line up of rental/demo models.

### SYMPRO:

SP 130 ABS DEMO AERO,  
SP 120 ABS,  
SP 100 ABS

## THE BINDINGS THAT HELP YOUR HIGH PERFORMANCE SKI SET-UP:

- Hand lever-adjusted heel (60 mm) and toe (64 mm).
- 7-toe positions.
- DIN-ranges from 2.5 up to 13 that accommodate even high level skiers.
- Short, lightweight heel track, despite wide adjustment range.
- SINGLE CODE: "A-6" for ski boots from 263-391 mm sole length.
- Replaceable brake
- Diagonal toe.
- Well-known brand that provides confidence for the skier.
- Optimal for Carving skis, minimized deviation between ski and boot mounting point.



pict 58

### SP 90 ABS, SP 75 ABS

- High performing models for adult boot sole dimensions.
- "ONE TOUCH" hand lever adjustment for toe (40 mm) and heel (36 mm).
- SINGLE CODE: "A-T" for ski boots from 263-343 mm sole length.
- DIN settings from 1.5-7.5 or rather 2.5-9.0 cover all requirements
- Replaceable brake
- Diagonal toe

### SP 45

A child and junior model, super convenient, "parent-free" operation.

- Automatic toe and heel pieces accept child and adult boot sole dimensions, giving you full utilization of your child/junior ski inventory.
- SINGLE CODE  
"a-w/F" for ski boots from 191-287 mm sole length.
- „ONE TOUCH" hand lever adjustment for toe and heel.
- Replaceable brake.
- Diagonal toe.
- For ski lengths shorter than 140 cm.
- DIN range 0.75 up to 4.5.

### SYMRENT:

#### SR 100

A technically proven workhorse for the discerning skier who rents.

- Retail cosmetics enhance the value of the binding to the skier.
- DIN range of 2.5 up to 10.
- Diagonal toe.
- Large 84 mm heel adjustment range.
- SINGLE CODE "A-V".
- Automatic toe and heel height adjustment.
- "ONE TOUCH"- Hand lever adjustment for the heel.
- POWER BRAKE - replaceable

#### SR 70

The lightweight junior binding with features rental operators want most.

- Latest toe and heel construction.
- SINGLE CODE  
2 heel guides: "i-J" (227-303 mm) standard and "q-R" (259-335 mm) with spare part 162 536. Kids' boots in lower case letters, adult boots in upper case letters.
- Automatic toe and heel height for both "children: C" and "adult: A" boot standards.
- POWER BRAKE - replaceable
- Wide DIN range: 2-7.
- "ONE TOUCH"- Hand lever adjustment for the heel.

## SR 45

A child and junior model, super convenient, "parent-free" operation.

- Automatic toe and heel pieces accept child and adult boot sole dimensions, giving you full utilization of your child/junior ski inventory.
- SINGLE CODE  
"b-o" (199-255 mm) standard, or "j-w/F" (231-287 mm) with spare part: 162 538).
- "ONE TOUCH"- Hand lever adjustment of the heel.
- Replaceable brake.
- Easy to open, easy to close.
- For ski lengths shorter than 140 cm.
- DIN range 0.75 up to 4.5.

# SYMPRO-SYMRENT ON THE SHOP FLOOR

## PREPARING AND CHECKING RENTAL SYSTEMS

Customers usually don't treat rental equipment as gently and carefully as they would handle their private property. In order to keep your rental fleet as functional and appealing as possible, a systematic maintenance program is a must. The best results are obtained with an ongoing program that constantly checks boots, bindings and skis. To keep the equipment in good condition while minimizing liability we recommend the following program (this is a requirement in the U.S.). In order to produce a truly efficient rental inventory some pre-season setup is required.

## SINGLE CODING

This enables a quick binding to boot adjustment even during the rush hours of rental business.

TYROLIA offers self adhesive color stickers (art. nr.: 162 561) with the SINGLE CODE to be applied before season. You simply check the boot's SINGLE CODE and adjust the binding accordingly.

In order to gain the efficiencies of SR, all you need to do is follow our simple procedure.

1. Mount all bindings according to the TYROLIA SR procedures. Pick a mounted sample binding of each model.
  2. Place a boot of each size in the binding and adjust forward pressure until correct.
  3. Open the heel and remove boot.
  4. Record the SINGLE CODE from the track on the side of the heel housing. (The boot must not be in the binding when you read the code.)
  5. Check each code again before marking all boots of this size with their SINGLE CODE (pict 59)!
- You can get SINGLE CODE stickers as a spare part.  
„SINGLE CODE“ sticker set art. nr. 162 561

For this procedure the TYROLIA Rental Boot Indicator (art.nr.162 617) can be used.



**NOTE:** Beginning with line 2003/04 the TYROLIA SINGLE CODES differ 1 mm. To make sure that there is a clear relation to the sole length column in the release/retention chart.

## RENTAL INSPECTION SUMMARY

Since it is impractical to perform a full inspection each time a system is rented, a routine of preseason and in season inspections has been developed to verify release indicator accuracy, confirm correct equipment function, and assure proper assembly and adjustment procedures by the rental shop staff.

Fully implemented, the procedures that follow provide rental shop customers a standard of care equivalent to that provided retail shop customers under current ISO and ASTM standards.

The program is based on standards:  
ISO 13993 and ASTM F1064.

## PRESEASON INSPECTION

Preseason inspections are performed on components of the release system: bindings and boots.

All rental bindings, new and used, are visually inspected, and then tested using specially selected Reference Boots. Bindings that fail go through a troubleshooting procedure to identify and correct the deviation or malfunction. If this procedure does not correct the problem, the binding is removed from inventory. All rental boots, new and used, are visually inspected for damage, wear, contamination, broken or missing parts, or inferior materials at contact points with the binding. In addition, one boot per "cell" is tested for boots that are new to the rental inventory.

A cell is all boots of the same make, model, age, and shell size. A random selection of 5% of all boots, previously accepted into inventory, is also tested. Tests are performed with a test device and a pair of specially selected reference bindings. If a boot fails, all boots from that cell are then tested. Boots that fail and cannot be repaired are removed from inventory.

## IN SEASON INSPECTION

In season inspections are performed on complete rental systems to ensure that the equipment is adjusted appropriately and continues to function correctly. Typically 5% of the rental inventory is tested during each two weeks sampling period. The random sample is equally divided between equipment that is available for rental and equipment that has just been rented. The equipment in the "as rented" category is from real skiers in the condition in which it is either dispatched or returned, while the "available for rental" equipment may be set up for fictitious skiers. Only single skis, not pairs, are tested, and testing at the toe is only required in one direction. A count is maintained of test results which exceed allowable limits. The magnitude and frequency of these deviations determines the frequency of future inspections. Shops which fail an inspection must sample daily until the source of the problem is found and corrected. Then, as inspection results improve, the frequency of sampling and inspection is relaxed.

## INSPECTION PROCEDURES

### IMPORTANT TERMS

#### CORRECTION FACTOR

The value that must be added or subtracted from the initial visual indicator setting to bring the result within the Inspection Tolerance (or Inspection Range).

#### DIRECTIONS OF RELEASE

Unless otherwise specified (see In season Inspection), the directions of release to be tested are forward lean and clockwise and counter clockwise in twist.

#### TEST DEVICE

A device which meets ISO standard 11110 or ASTM standard F1061 and has been checked and maintained in the manner specified by the device manufacturer.

#### TEST RESULT OR RELEASE TORQUE

The middle quantitative value of three tests made in the same direction.

## PRESEASON TEST

### REFERENCE BOOT SELECTION

The Reference Boot is a boot of a designated sole length which is otherwise typical of the boot inventory. Use the procedure below if the boot inventory includes several models and a representative boot can not easily be identified.

1. Select five single boots with sole lengths as specified in Table [A] for the binding type to be tested: adult, junior, or child.
2. Clean all five boots with a mild detergent and water.
3. Adjust a rental binding to the release indicator setting specified in Table [A] for the binding type.
4. Fit the binding to the boot and determine the Release Torque in all three directions of release (forward lean and both directions in twist-three releases in each direction).
5. Average the Release Torque for CW (clockwise) and CCW (counter clockwise) twist release.
6. Reject and replace any boot with a CW to CCW difference of more than 6 Nm for adult boots or 4 Nm when testing child boot types.
7. Rank the five twist results and select, as the Reference Boot for twist, the middle boot.
8. Rank the five forward lean results and select, as the Reference Boot for forward lean, the middle boot.

### PRESEASON BINDING INSPECTION

The procedure that follows is an integral part of pre-season maintenance. It is also a good way to determine if maintenance and which units have outlived their usefulness and must be removed from inventory.

1. Clean areas of the bindings that contact the boot and perform all preseason binding maintenance.
2. Visually or manually check:
  - a.) AFD condition.
  - b.) Brakes function.
  - c.) Release indicator readability and travel.
  - d.) Screw tightness.

3. Adjust each binding with the reference boot, then adjust the release value indicators to the specified value found in Chart A,
4. Check that the heel track and toe track Single Code agree with the sole length Single Code of the reference boot.
5. With the Reference Boot in the binding, verify elastic travel of the toe piece by striking the boot toe with a mallet or dead hammer and checking that the toe piece returns the boot quickly and completely to center.
6. Verify elastic travel of the heel piece by lifting the boot while depressing the heel piece cocking lever and checking that the heel piece returns the boot quickly and completely to the latched position.
7. Manually release the binding 3 times in each direction.
8. Lubricate all boot/binding interfaces with a mild liquid detergent and water solution.
9. With the Ski Binding Test Device determine the Release Torque for each direction of release (forward lean and both directions in twist).
10. Record "PASS" in the bindings maintenance record if Test Results are within the Inspection Range provided in Table [A].
11. Set the ski aside if the Test result in any directions of release is outside the Inspection Range in Table [A].
12. Follow Troubleshooting Procedure on page 69/70 for units which have been set aside and retest if changes in the unit's condition or adjustment are made.
13. Record "FAIL" in the binding's maintenance record if, after troubleshooting, test results in any direction of release are outside the In-Use Range. Replace the "failed" unit and retest before returning the ski to service.
14. If after troubleshooting, Test Results are outside the Inspection Range but within the In-Use Range, apply a Correction Factor to the unit and note the Correction Factor for that unit in the binding's maintenance record.
15. If many bindings fail, check the test device and re-inspect the Reference Boot. If necessary, select another boot and retest the bindings.

Ski Code	Binding Type	Sole length mm	Release Indicator Setting	Reference Torque Twist Nm	Reference Torque Forward Nm	Twist Inspection Range Nm	Forward Inspection Range Nm	Twist In-Use Range	Forward In-Use Range Nm
F	Children	270mm	2.5	25 Nm	94 Nm	21–29 Nm	80–108 Nm	17.5–33 Nm	66–122Nm
J	Junior	306 mm	4.5	45 Nm	175 Nm	38–52 Nm	149–201 Nm	31–59 Nm	122–228 Nm
L	Adult	327 mm	6.0	60 Nm	239 Nm	51–69 Nm	203–275 Nm	42–78 Nm	167–311 Nm

Table [A] Preseason Binding Inspection

### PRESEASON BOOT PREPARATION

The procedure that follows is an integral part of preseason maintenance.

1. Clean all boots with a mild detergent and water, and repair or replace damaged or missing parts.
2. Visually check:
  - a.) Conformance with ISO and other applicable standards- ISO 5355. If the boot contacts the binding, brake, or AFD in areas other than the designated contact points, it may be incompatible with the binding.
  - b.) Boot material. If the sole at the contact points with

the binding or AFD can be scratched with a finger nail, the boot may be of inferior quality and incompatible with the binding.

- c.) Boot sole condition. If the boot sole is damaged, worn, or contaminated at contact points with the binding or AFD in a manner which can not be corrected, the boot may be incompatible with the binding, "Verify boot sole dimensions" on page 43.
- d.) Brake compatibility with sole.
- e.) Rubber and/or metal sole protectors.  
If such materials contact the binding or AFD the boot may be incompatible with the binding.

- f.) Mold flashings. Flashing which can be seen or felt at contact points with the binding, brake, or AFD must be carefully removed.
3. Remove from inventory all boots that have failed the visual check.

### PRESEASON BOOT SAMPLING

Although sampling eliminates the need to test every boot before the season starts, the sample chosen must be representative of the inventory.

1. For boots that are new to inventory or have never been inspected, take a single boot from each cell (a cell is all boots of the same make, model, year, and shell size).
2. For used boots, take a 5% (but not less than 16 or more than 80) random sample of the entire inventory, see Table [B]. Make sure that there is at least one boot from each cell in the sample.

### PRESEASON BOOT INSPECTION

The procedure that follows helps to assure boot/ binding compatibility and boot interchange ability.

**NOTE:** when using Table [A], in the Boot Inspection procedures that follow, the Sole Length and release Indicator Setting columns should be ignored.

1. Randomly select a pair of bindings that have passed the preseason inspection from each binding type; adult, junior, child.
2. Lubricate all boot/binding contact points with a mild liquid detergent.
3. Without regard to whether the boot is new or used, sort the sample by sole type and length according to the 20 mm Sole Length Categories defined by the Release/Retention Adjustment Chart.
4. In each Sole Length Category rank the boots by sole length and select the middle boot.
5. In each Sole Length Category fit the appropriate reference bindings to this "typical" boot and adjust the two bindings to release as close as practical to the Reference Torque in Table [A]. Use the Reference Torque corresponding to Skier Code [L] for the Adult binding, [J] for Junior binding, and [E] for the Child binding.
6. Rinse the lubricant from one binding and mark it "clean". Mark the other "lubricated".
7. Test each boot in the Sole Length Category with the clean Reference Binding and then the lubricated Reference Binding in both twist and forward lean (only one direction in twist is required for the clean binding).
8. Set aside any boots for which the lubricated Test Result is more than 20% less than the clean Test Result in the same direction of release or the lubricated Test Result in any direction of release is outside of the Inspection Range provided in Table [A] for Skier Code used to set up the Reference Binding (L, J, or F).
9. Repeat the Visual check on all boots that have been set aside, correct any defects noted, and retest. Remove from inventory boots that fail the retest.
10. Check all other boots from the same cell (make, model, year, and shell size) as those that failed.

**NOTE:** On completion of the preseason inspection, clean the liquid detergent from equipment and lubricate the binding before returning it to service.

### IN SEASON SAMPLING AND INSPECTION

The In season Inspection is a test of complete systems and all the procedures used by the rental staff to assemble and

adjust the system. The program uses random samples of rental inventory taken at routine intervals. Any sampling program that gives every unit of inventory the same chance as every other of being picked is valid.

### SAMPLE FREQUENCY

Random sampling is conducted throughout the entire season. Frequency is as follows:

1. After 7 days of operation.
2. If the sample passes the next sampling is taken after another 7 days operation.
3. If two consecutive samples pass, sampling frequency is increased to 14 days.
4. If a sample fails at any time, daily sampling is instituted until two consecutive samples pass, at which point weekly sampling resumes.

### SAMPLE SIZE

Sample size is 5% of inventory but not less than 16 nor more than 80 units as noted in Table [B]. Sample size is based on average daily output. If rental output drops below 50% of capacity over the sampling period, the sample size can be reduced proportionately.

### IN SEASON INSPECTION

1. Take a random sample of the rental inventory as determined by Table [B]. Take half the sample from inventory as it is either rented or returned and the remainder from inventory available for rental.
2. The returned samples are tested with the last customer's data, the other samples adjust to randomly selected skier data.  
Consider already applied Correction Factors.
3. Wipe the boot clean and cycle the boot/binding systems at least once in each direction.
4. Test sample units in Twist (one direction only) and Forward Lean.
5. Compare the Test Results with the Inspection Range for the appropriate Skier Code, see ISO 11088 Release/ Retention Adjustment Chart (page 73).
6. If the results are within the Inspection Range, one value above to one value below the reference value, the unit passes.
7. If the results are outside Inspection Range but within the In-Use Range, two values above to two values below the reference value, count the unit as a Class I Deviation.
8. If the results are outside the In-Use Range, count the unit as a Class II Deviation.
9. Check elastic travel and visually inspect the ski brake function, interface areas between boot and binding, including AFD, lug height adjustment (if appropriate), and forward pressure. Count any deficiencies as Class I Deviations.
10. If more than the maximum number of Class I Deviations given in Table [B] are found in the sample, or a single Class II Deviation is detected the sample fails and daily sampling must be conducted until the problem which led to the failed sample is found and corrected. See page 69/70 for Troubleshooting Procedures following a Failed In season Inspection.
11. Record the date the sample was tested, the number of units tested the number of Class I and Class II Deviations, whether the sample passed or failed and any actions taken. There is not need to record the identity of units tested or actual Test Results.



	Min.								Max	
Inventory Size - pairs	50	100	200	300	400	500	600	700	800	900
Inventory Size - units (half pairs)	100	200	400	600	800	1000	1200	1400	1600	1800
Sample Size - units (half pairs)	16	16	20	30	40	50	60	70	80	80
Max. Class 1 dev.	3	3	4	6	8	10	12	14	16	16

Table [B]

## RENTAL / DEMO OF PARTIAL SYSTEMS

Many shops rent their customers partial ski equipment systems. Boots only if customers own their own skis with bindings, or skis and bindings if the customers own their own boots.

Additionally some shops utilize on-hill “demo days” as a means by which new products can be tested and evaluated by potential buyers.

In order to offer these skiers the same level of care as that afforded under the preceding procedures, the following guidelines should be used:

### RENTAL OF SKIS / BINDING ONLY. CUSTOMER - OWNED BOOTS

Although the retail test procedure may be applied in this case, it is often impractical to require actual system testing, especially in on-hill situations. In lieu of retail testing, the following procedures may be employed:

1. The ski/binding system to be rented or demoed should be tested “pre-season” using a boot which passes the TYROLIA Boot Visual Inspection.
2. The skier’s boot should also pass the Visual Inspection. If any questions exist regarding the quality of the boot, retail-type testing should be used.
3. The binding should be adjusted and its indicators set per current TYROLIA recommendation.
4. A full record noting appropriate customer information and binding settings should be kept by the individual or organization responsible for the adjustment.
5. After seven days of use, the ski/binding system should be tested according to the In-Season Inspection Procedures previously described.

**NOTE:** for US and Canada:

Signatures of both the customer and HEAD/TYROLIA Certified Mechanic are required on all shop forms to qualify for the HEAD/TYROLIA Dealer Indemnity Program.

# BOOT-HANDLING AND TESTING

## VISUAL INSPECTION OF SKI BOOTS

In assembling a system for the skier, it is the responsibility of the shop to inspect and evaluate each equipment component. This inspection checklist should be followed before any mounting or adjusting is performed.

Ideally, they should be posted and used on the sales floor while the customer is still in the shop so that any deficiencies can be explained on the spot.

In retail, boots must pass all four points of this inspection before being accepted for use. In rental, this inspection is the first step in the "preseason boot test procedure".

### 1. CHECK TYPE, SIZE AND OVERALL CONDITIONS

- Is the performance level appropriate for the skier?
- Is the size correct (SINGLE CODE, boot sole length)?
- Is all hardware intact and in working order?
- Is the boot free of excessive or asymmetric wear?
- Is the boot free of dirt or sole warp?

### 2. CHECK MATERIAL

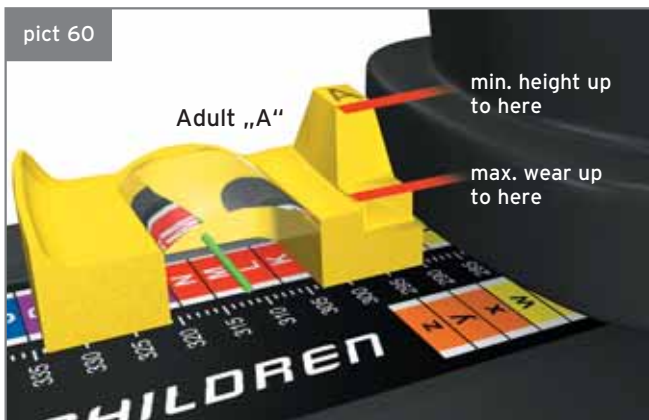
- Binding contact surfaces require a high quality hard, low-friction material. Check both lower shell and any separately attached inserts.
- If you can easily scratch the surface of the sole with your fingernail, that's an indication of extremely soft material that can degrade system performance.

### 3. CHECK CONDITION OF BINDING CONTACT SURFACES, TOE AND HEEL

- Any scratches or other roughness should not be deeper than 1mm.
- Check for any rocks, gum, or other foreign matter stuck to the sole.

### 4. VERY BOOT SOLE DIMENSIONS

- Ski boots must meet international standard specifications.
- Use the HEAD/TYROLIA Boot Rental Indicator to determine whether wear is excessive. The most critical dimension for HEAD/TYROLIA bindings is the front surface and height of the boot toe. Any boots worn past the indicated amounts should be repaired or not used with HEAD/TYROLIA bindings.



## THE HEAD/TYROLIA BOOT INDICATOR

INDICATOR art. nr. 162 617

This TYROLIA rental boot device is a multifunction-tool:

1. Sole length: Put the boot in the device and slide the toe stop up to the boot toe. Read sole length in the window, used for TYROLIA rental bindings: the SINGLE CODE (see pict 62).



2. Boot sole wear: The standardized interfaces (contact boot sole with sole lugs) are important in the functioning of HEAD/TYROLIA bindings.
3. Boot toe bottom: Excessive wear is indicated if the lower edge of the front surface is at or above the bottom step on the appropriate child (C 2) or adult (A 2) post (see pict 63).
4. Boot toe ledge height: With the toe stop against the boot toe, the level of the toe should be at or above the top of the appropriate post, "Child" (C1) or "Adult" (A1) (see pict 63). Replace toe pads if worn.



5. Heel height and wear: Check this boot standard with the same procedure used for the toe. The heel posts (A 3) + (C 3) are located at the rear of the device (see pict 64).
6. The marks "A/C" help to select a "Child" boot from an "Adult" by indicating the standardized sole width.

pict 64



**NOTE:**

Any boot which passes points 3, 4 and 5, as well as conforming to the Visual Inspection Checklist, may be accepted for use with TYROLIA bindings.

Boots which fail any point should be repaired or replaced.

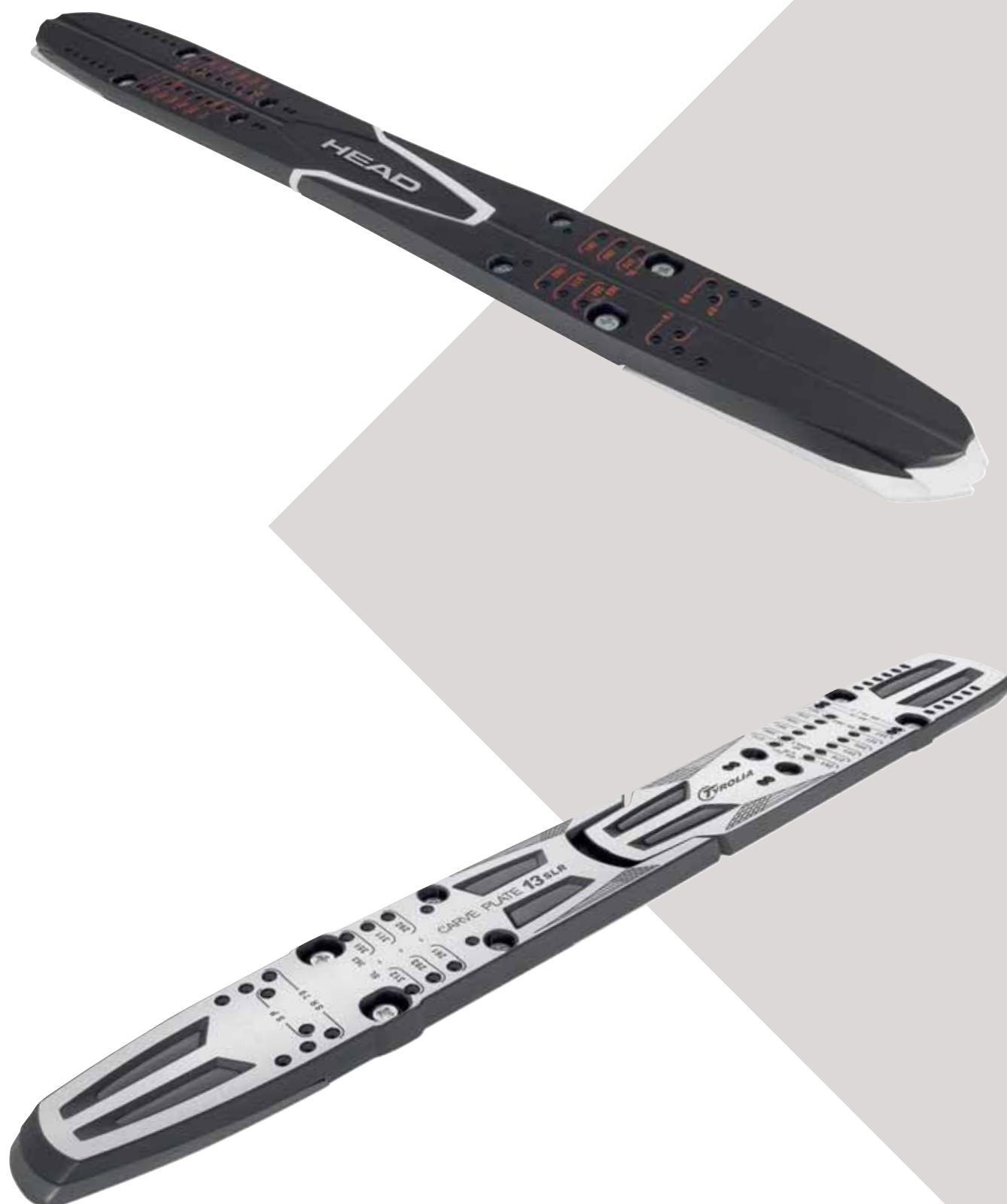
These checks apply only to boots used with TYROLIA bindings. Consult other binding manufacturers for their used boot specifications.

## CLEAN VS. LUBRICATED SKI BOOT TEST

This test is designed to determine the influence of a given boot on the release characteristic of a binding. It should be performed on boots not meeting all the points of the HEAD/TYROLIA boot visual inspection criteria, or if measured release values fall outside the system "inspection" tolerance. It is seen as the "last chance" for a boot to qualify before getting eliminated from inventory.

1. Clean the boot(s) to be tested with soap and water. Allow to dry.
2. Select an appropriate HEAD/TYROLIA "reference" binding that has displayed release values within the inspection tolerance on the TYROLIA Adjustment Chart. Clean the binding's boot contact surfaces with soap and water and allow to dry.
3. Test the binding and boot in Twist and Forward Lean at a mid-scale indicator value (Only one direction of twist is required).
4. In a further test run lubricate all boot/binding contact areas with soapy water. Retest in Twist and Forward Lean.
5. Results of each lubricated test should be within 20% of the corresponding results when tested clean. Any boot which fails this test should not be used with a HEAD/TYROLIA binding.

# CARVE PLATES



## HEAD CARVE PLATES 2007/08

### CARVE PLATE 13 SLR



- Height 13 mm
- Boot length 261 - 351 mm
- SHOCK ABSORBER
- Two-piece FLEXSYSTEM supports FREEFLEX
- Increased torsional stability, control, and edge grip
- Oblong holes maintain ski flexibility
- SUPER LIGHT

Art.Nr. 152 001  
black/black/white

Art.Nr. 152 002  
black/red/white

Art.Nr. 152 004  
black/gold/black

Art.Nr. 152 005  
black/white/green

### CARVE PLATE 9 SLR



- Height 9 mm
- Boot length 261 - 341 mm
- Two-piece FLEXSYSTEM supports FREEFLEX
- Increased torsional stability, control, and edge grip
- SUPER LIGHT

Art.Nr. 152 009

### HEAD PLATE 14



- Height 14 mm
- Boot length 251 - 332 mm
- SHOCK ABSORBER
- Two-piece FLEXSYSTEM supports FREEFLEX
- Increased torsional stability, control, and edge grip
- SUPER LIGHT

Art.Nr. 152 007



# TYROLIA CARVE PLATES 2007/08

## CARVE PLATE 13 SLR

- Height 13 mm
- Boot length 261 - 351 mm
- SHOCK ABSORBER
- Two-piece FLEXSYSTEM supports FREEFLEX
- Increased torsional stability, control, and edge grip
- Oblong holes maintain ski flexibility
- SUPER LIGHT



Art.Nr. 131 093

## CARVE PLATE 9 SLR

- Height 9 mm
- Boot length 261 - 341 mm
- Two-piece FLEXSYSTEM supports FREEFLEX
- Increased torsional stability, control, and edge grip
- SUPER LIGHT



Art.Nr. 131 094

## JUNIOR PLATE 11

- Height 11 mm
- Boot length 251 - 332 mm
- Two-piece FLEXSYSTEM supports FREEFLEX
- Increased torsional stability, control, and edge grip
- Oblong holes maintain ski flexibility
- SUPER LIGHT



Art.Nr. 131 102

## HEAD BINDING-PLATE COORDINATION LINE 2007/08

<div>BINDING</div> <div>STAND HEIGHT</div>	CARVE PLATE 13 SLR 13 mm 261-351 SL - 363	CARVE PLATE 9 SLR 9 mm 261-341 SL - 353	HEAD PLATE 14 14 mm 251-332 SL - 334
FREEFLEX PRO 18 (X)	30,0	26,0	31,0
FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11	34,0	30,0	35,0
LD 12 CYBER	44,0	40,0	45,0
MOJO 20 (X) MOJO 15 MOJO 11 MOJO 7.5 LD 12 LD 12 WIDE BRAKE SL 110 ABS SL 100 GOLD THANG 12 LD SL 75 ABS SL 75 SL 70 AC	34,0	30,0	35,0
SL 45	—	—	—

—..... non compatible

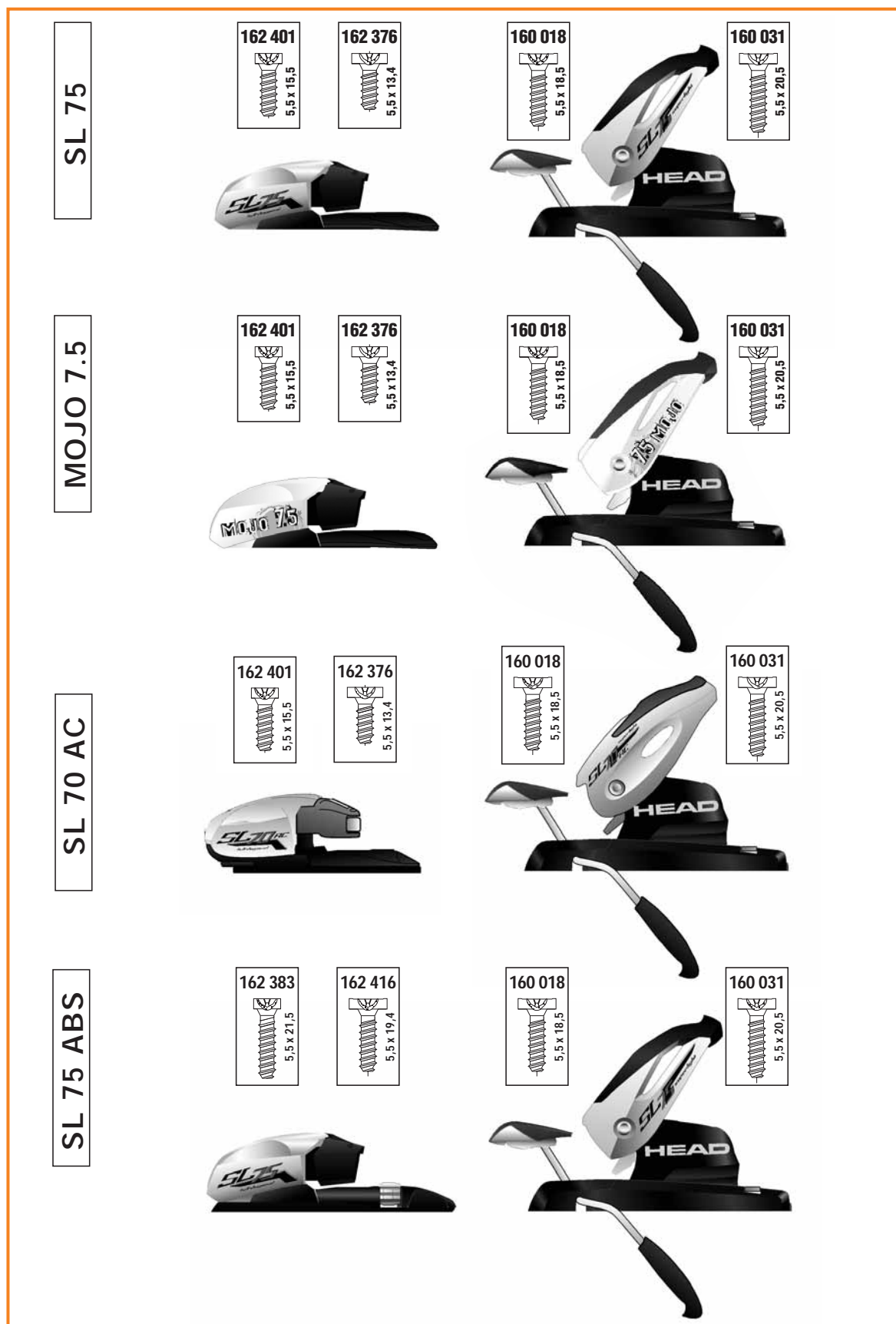
# TYROLIA BINDING-PLATE COORDINATION LINE 2007/08

<div>BINDING</div> <div>STAND HEIGHT</div>	CARVE PLATE 13 SLR 13 mm 261-351 SL - 363	CARVE PLATE 9 SLR 9 mm 261-341 SL - 353	JUNIOR PLATE 11 11 mm 251-332 SL - 334
FREEFLEX PRO 18 (X)	30,0	26,0	28,0
FREEFLEX PLUS 17 FREEFLEX PLUS 15 FREEFLEX PLUS 11	34,0	30,0	32,0
LD 12 CYBER SL 110 CARVE ABS	44,0	40,0	42,0
LD 12 LD 12 WIDE BRAKE SL 100 SL 100 WIDE BRAKE SL 75 SL 70 AC	34,0	30,0	32,0
SP 130 ABS DEMO AERO SP 120 ABS WIDE BRAKE SP 100 ABS	44,5	40,5	—
SP 90 ABS SP 75 ABS	44,5	40,5	42,5
SR 100	—	31,5	—
SR 70	35,0	31,0	33,0
SL 45 SP 45 SR 45	—	—	—

—..... non compatible

## MOUNTING OF JUNIOR BINDINGS ON HEAD CARVE PLATES OR ON SKIS $\geq 140$ CM

For mounting the SL 75, MOJO 7.5, SL 70 AC and SL 75 ABS on HEAD CARVE Plates or on skis, 140 cm and longer, replace the premounted screws by 8 mm penetration depth screws. Only with these screws can we guarantee the right pullout strength (see table).



# MOUNTING OF JUNIOR BINDINGS ON TYROLIA CARVE PLATES OR ON SKIS $\geq 140$ CM

For mounting the SL 75, SL 70 AC, SR 70 and SP 75 ABS on TYROLIA CARVE Plates or on skis, 140 cm and longer, replace the premounted screws by 8 mm penetration depth screws. Only with these screws can we guarantee the right pullout strength (see table).

SL 75	<b>162 401</b>  5,5 x 15,5	<b>162 376</b>  5,5 x 13,4	<b>160 018</b>  5,5 x 18,5	<b>160 031</b>  5,5 x 20,5		
SL 70 AC	<b>162 401</b>  5,5 x 15,5	<b>162 376</b>  5,5 x 13,4	<b>160 018</b>  5,5 x 18,5	<b>160 031</b>  5,5 x 20,5		
SR 70	<b>162 488</b>  5,5 x 19,5	<b>162 426</b>  5,5 x 16,9	<b>160 018</b>  5,5 x 18,5	<b>162 423</b>  5,5 x 21,5		
SP 75 ABS	<b>162 639</b>  5,5 x 9,0	<b>162 639</b>  5,5 x 9,0	<b>162 458</b>  5,5 x 29,0	<b>162 461</b>  5,5 x 32,5		



## MOUNTING PROCEDURE HEAD/TYROLIA CARVE PLATES

### 1. GENERAL

If the CARVE PLATES are not already premounted, use **template 92 W** if you want to mount **retail bindings** on the plate afterwards.

If you want to mount **SYMPRO bindings** on CARVE PLATES use **template SP 2003 W** and if you want to mount **SYMRENT bindings** on CARVE PLATES use **Template SR 2003 W**.

When mounting a **RENTAL binding** on the CARVE PLATE using **template 92 W** for installation then you have to displace the template to the rear according to the following table.

Binding	Displacement of the boot midpoint indicator to the rear, for template 92 W.
SP 130 ABS DEMO AERO SP 120 ABS DEMO SP 100 ABS, SR 70 (q-R)	10 mm
SR 100, SR 70 (i-J)	20 mm
SP 90 ABS SP 75 ABS	30 mm

The compatible binding-plate combinations can be found in the compatibility chart (see page 48/49).

All HEAD/TYROLIA CARVE PLATES can be used for skis 140 cm and longer. If mounted on skis shorter than 140 cm, then the screws have to be replaced by shorter ones. See screw chart on page 61/63.

For mounting junior bindings on HEAD/TYROLIA CARVE PLATES you have to replace the pre-mounted screws by screws with 8 mm penetration depth. Only with these screws can we guarantee the right pullout strength (see page 50/51).

**NOTE:** Don't drill holes into the Carve Plate to mount bindings of other manufacturers. We can guarantee the right pullout strength only if you use the pre-drilled holes!

### 2. ADJUSTING THE DRILL TEMPLATE

**92 W:** Unlock the adjustment lever (1) by rotating it counter clockwise and push the template together as far as possible (23 cm). Fix the position by rotating the adjustment lever to the far right.

**SP 2003 W:** see page 33

**SR 2003 W:** see page 35

### 3. POSITIONING THE DRILL TEMPLATE

Open the jaws (4) of the template by rotating the handles (5) and place it on the ski with the boot midpoint indicator aligned with the mounting mark of the ski. For ski boot tip mounting align the corresponding sole length mark on the sticker (pict 65) with the boot tip mounting mark on the ski.

### 4. DRILLING THE HOLES

If not otherwise specified by the ski manufacturer, use a 4.1 Ø x 9.0 mm drill bit for skis 140 cm and longer.

For ski shorter than 140 cm use a 4.1 Ø x 7.0 mm drill bit.

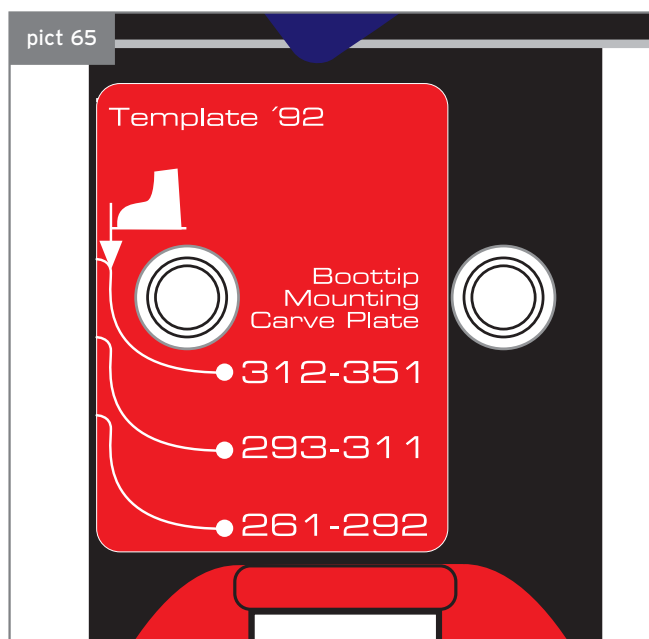
Drill the holes using the appropriate HEAD/TYROLIA drill bit. After drilling, drop some HEAD/TYROLIA glue into the clean holes. This lubricates the screws and seals the hole.

### 5. MOUNTING

Place the front part of the plate over the holes and fasten the screws. Then place the back part over the holes and fasten the screws.

Determine the boot sole length with the HEAD/TYROLIA Rental boot caliper and place the binding on the Carve Plate corresponding with the appropriate printed length markings. Mount the binding in accordance with the procedures in the Technical Manual.

For ski boot tip oriented mounting only



# MOUNTING OF HEAD/TYROLIA BINDINGS ON PLATES

## MOUNTING HEAD/TYROLIA BINDINGS ON RAISED PLATFORMS:

- Replacing the POWER BRAKE is not necessary when you mount HEAD/TYROLIA bindings with the HEAD/TYROLIA CARVE PLATE 13 SLR or CARVE PLATE 9 SLR on skis which do not have integrated platforms.
- The HEAD/TYROLIA DRAGON BRAKE has extended brake arms and increased braking power. Unscrew and remove both front heel screws and pull the POWER BRAKE off the heel (see pict 66).



- Then slide on the DRAGON BRAKE (see pict 67) and screw it on.

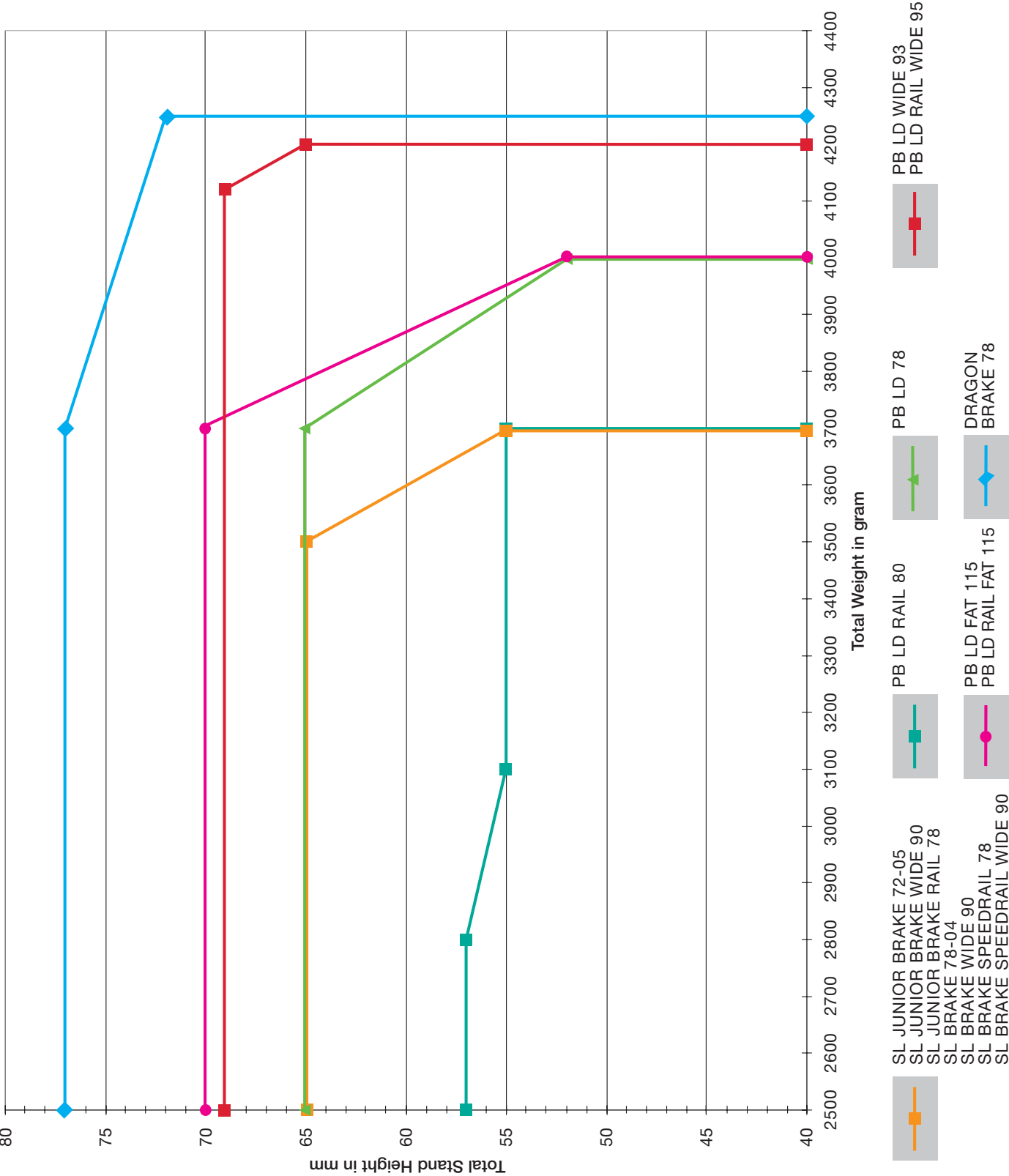


**CAUTION:** If you use HEAD/TYROLIA bindings on plates from other manufacturers, check the HEAD/TYROLIA Brake Matrix to see if the desired combination of ski-plate-binding is possible.

## FOLLOW THE PROCEDURE BELOW:

1. Add the weight of the components you want to mount (ski + plate + binding).
2. Add the thickness of the components you want to mount (ski + plate + binding).
3. Using the list below, determine which HEAD/TYROLIA brakes are standard on the bindings delivered.
4. Find the value on the vertical axis which corresponds to the sum of the addition for the stand height.
5. Follow the horizontal axis on the matrix to the right until you find the value which corresponds to the total weight on the horizontal axis.
6. If the point of intersection of the weight and stand height lies below the respective curve, the brake will function properly.
7. If the point of intersection lies above the curve for the POWER BRAKE/short or POWER BRAKE long, the brake must be replaced with the next stronger one.
8. If the point of intersection lies above the curve for the DRAGON BRAKE, using this combination of ski + binding + plate is not recommended. In this case, you have the following possibilities to come within the permitted range:
  - a) Reduce the total thickness through:
    - a thinner plate,
    - a HEAD/TYROLIA binding with less stand height (see page 12-15).
  - b) Reduce the total weight to
    - a lighter plate, e. g. a HEAD/TYROLIA CARVE PLATE 9 SLR
    - a HEAD/TYROLIA binding with less weight,
    - a lighter ski.
  - c) Use a combination of a) + b).




HEAD/TYROLIA BRAKE MATRIX  
LINE 2007/08







# **BRAKES SPARE PARTS MAINTENANCE & SERVICE**



















## HEAD BRAKE LINE 07/08






Ski width	Art. Nr.	Brake	Picture	Model 2007/08
up to 74 mm	162 399	SL Kid Brake 74		SL 45
up to 84 mm	162 658	SL Kid Brake wide 84		SL 45
up to 72 mm	162 764	SL Junior Brake 72-05		SL 75 ABS SL 75 SL 70 AC
up to 90 mm	162 776	SL Junior Brake wide 90		MOJO 7.5 SL 75 ABS SL 75 SL 70 AC
up to 78 mm	162 642	SL Brake 78-04		SL 110 ABS SL 100
up to 90 mm	162 755	SL Brake wide 90		SL 110 ABS SL 100
up to 74 mm	162 753	SL Kid Brake Rail 74		RFL 4.5
up to 78 mm	162 754	SL Junior Brake Rail 78		RFL 9 RFL 7.5 LITE THANG 9 RFL
up to 78 mm	162 798	SL Brake Speedrail 78		RF 11 SURE THANG 9 RF
up to 90 mm	162 804	SL Brake Speedrail wide 90		RF 11 SURE THANG 9 RF
up to 80 mm	162 716	Power Brake LD Rail 80		RFD 14 RFD 14 DEMO RFD 12 RFD 11 DEMO
up to 95 mm	162 767	Power Brake LD Rail wide 95		RFD 14 RFD 11 DEMO RFD 12 RFD 11 DEMO
up to 115 mm	162 765	Power Brake LD Rail FAT 115		RFD 14 RFD 14 DEMO RFD 12 RFD 11 DEMO
up to 78 mm	162 578	Power Brake LD 78		FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 CYBER LD 12
up to 78 mm	162 850	Power Brake Race PRO 16-78		FREEFLEX PRO 20 X RD FREEFLEX PRO 20 X RS FREEFLEX PRO 16 X RD
up to 78 mm	162 851	Power Brake Race PRO 17-78		FREEFLEX PRO 18 X Sale
up to 85 mm	162 805	Power Brake LD wide 85		FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 CYBER LD 12 GOLD THANG 12 LD






















































Ski width	Art. Nr.	Brake	Picture	Model 2007/08
up to 93 mm	162 768	Power Brake LD wide 93		FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 CYBER LD 12 MOJO 20 X MOJO 15 MOJO 11 GOLD THANG 12 LD
up to 115 mm	162 603	Power Brake LD FAT 115		FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 CYBER LD 12 MOJO 20 X MOJO 15 MOJO 11 GOLD THANG 12 LD
up to 130 mm	162 710	Power Brake LD X FAT 130		FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 CYBER LD 12 MOJO 20 X MOJO 15 MOJO 11 GOLD THANG 12 LD
up to 78 mm	162 499	Dragon Brake 78		FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 CYBER LD 12 MOJO 20 X MOJO 15 MOJO 11 GOLD THANG 12 LD

## TYROLIA BRAKE LINE 07/08

Ski width	Art. Nr.	Brake	Picture	Model 2007/08	Model 2006/07
up to 74 mm	162 399	SL Kid Brake 74		SL 45 SR 45	SL 45 SR 45
up to 74 mm	162 559	SL Kid Brake Sympro 74		SP 45	SP 45
up to 84 mm	162 658	SL Kid Brake wide 84		SL 45 SR 45 SP 45	SL 45 SR 45 SP 45
up to 72 mm	162 764	SL Junior Brake 72-05		SL 75 SL 70 AC	SL 70 ABS SL 70 SL 70 AC
up to 90 mm	162 776	SL Junior Brake wide 90		SL 75 SL 70 AC	MOJO 7 SL 70 ABS SL 70 SL 70 AC
up to 78 mm	162 642	SL Brake 78-04		SL 110 CARVE ABS SL 110	SL 110 CARVE ABS SL 110 ABS SL 110 SL 100
up to 90 mm	162 755	SL Brake wide 90		SL 110 CARVE ABS SL 100 SL 100 WIDE BRAKE	MOJO 11 SL 110 CARVE ABS SL 110 ABS SL 110 SL 100
up to 74 mm	162 753	SL Kid Brake Rail 74		RFL 4.5	RFL 4.5
up to 78 mm	162 754	SL Junior Brake Rail 78		RFL 9 RFL 7.5	RFL 9 RFL 7 RFL 9 W
up to 78 mm	162 798	SL Brake Speedrail 78		RF 10	RF 11 RF 10 RF 9 W
up to 90 mm	162 804	SL Brake Speedrail wide 90		RF 10	RF 11 RF 10 RF 9 W
up to 80 mm	162 716	Power Brake LD Rail 80		RFD 11 RFD 11 DEMO	RFD 14 DEMO RFD 11 DEMO
up to 95 mm	162 767	Power Brake LD Rail wide 95		RFD 11 RFD 11 DEMO	RFD 14 DEMO RFD 11 DEMO
up to 115 mm	162 765	Power Brake LD Rail FAT 115		RFD 11 DEMO RFD 11	RFD 14 RFD 14 DEMO RFD 12 RFD 11 DEMO RFD 11
up to 78 mm	162 578	Power Brake LD 78		FREEFLEX PLUS 17 FREEFLEX PLUS 15 FREEFLEX PLUS 11 LD 12 CYBER LD 12 SP 130 ABS DEMO AERO SP 120 ABS SP 100 ABS SP 90 ABS SP 75 ABS SR 100 SR 70 BYS 100	FREEFLEX PLUS 18 X FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 CYBER LD 12 SP 130 ABS DEMO AERO SP 120 ABS SP 100 ABS SP 90 ABS SP 75 ABS SR 100 SR 70 BYS 100
up to 78 mm	162 851	Power Brake Race PRO 17-78		FREEFLEX PRO 18	

Ski width	Art. Nr.	Brake	Picture	Model 2007/08	Model 2006/07
up to 85 mm	162 805	Power Brake LD wide 85		FREEFLEX PLUS 17 FREEFLEX PLUS 15 FREEFLEX PLUS 11 LD 12 CYBER LD 12 LD 12 WIDE BRAKE SP130 ABS DEMO AERO SP 120 ABS SP 100 ABS SP 90 ABS SP 75 ABS SR 100 SR 70 BYS 100	
up to 93 mm	162 768	Power Brake LD wide 93		FREEFLEX PLUS 17 FREEFLEX PLUS 15 FREEFLEX PLUS 11 LD 12 CYBER LD 12 LD 12 WIDE BRAKE SP130 ABS DEMO AERO SP 120 ABS SP 100 ABS SP 90 ABS SP 75 ABS SR 100 SR 70 BYS 100	FREEFLEX PLUS 18 X FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 CYBER LD 12 MOJO 20 X MOJO 15 SP 130 ABS DEMO AERO SP 120 ABS SP 100 ABS SP 90 ABS SP 75 ABS SR 100 SR 70 BYS 100
up to 115 mm	162 603	Power Brake LD FAT 115		FREEFLEX PLUS 17 FREEFLEX PLUS 15 FREEFLEX PLUS 11 LD 12 CYBER LD 12 LD 12 WIDE BRAKE SP130 ABS DEMO AERO SP 120 ABS SP 100 ABS SP 90 ABS SP 75 ABS SR 100 SR 70 BYS 100	FREEFLEX PLUS 18 X FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 CYBER LD 12 MOJO 20 X MOJO 15 SP 130 ABS DEMO AERO SP 120 ABS SP 100 ABS SP 90 ABS SP 75 ABS SR 100 SR 70 BYS 100
up to 130 mm	162 710	Power Brake LD X FAT 130		FREEFLEX PLUS 17 FREEFLEX PLUS 15 FREEFLEX PLUS 11 LD 12 CYBER LD 12 LD 12 WIDE BRAKE SP130 ABS DEMO AERO SP 120 ABS SP 100 ABS SP 90 ABS SP 75 ABS SR 100 SR 70 BYS 100	FREEFLEX PLUS 18 X FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 CYBER LD 12 MOJO 20 X MOJO 15 SP 130 ABS DEMO AERO SP 120 ABS SP 100 ABS SP 90 ABS SP 75 ABS SR 100 SR 70 BYS 100
up to 78 mm	162 499	Dragon Brake 78		FREEFLEX PLUS 17 FREEFLEX PLUS 15 FREEFLEX PLUS 11 LD 12 CYBER LD 12 SP130 ABS DEMO AERO SP 120 ABS SP 100 ABS SP 90 ABS SP 75 ABS SR 100 SR 70 BYS 100	FREEFLEX PLUS 18 X FREEFLEX PLUS 17 FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 CYBER LD 12 SP 130 ABS DEMO AERO SP 120 ABS SP 100 ABS SP 90 ABS SP 75 ABS SR 100 SR 70 BYS 100

## HEAD SPARE PARTS - 07/08




































	SL 45	 162 399	 162 382				
	SL 70 AC	 162 764	 162 382				
	SL 75	 162 764	 162 509				
	SL 75 ABS	 162 764		 162 577			
	SL 100	 162 642	 162 509				
	SL 110 ABS	 162 642		 162 577			
	MOJO 7.5	 162 755	 162 509				
	MOJO 11	 162 768		 162 577			
	MOJO 15	 162 768		 162 577		 162 502	
	MOJO 20 X	 162 768	 162 509		 162 357	 162 502	
	LD 12 CYBER LD 12 GOLD THANG 12 LD	 162 578		 162 577			
	RFL 4.5	 162 753	 162 382		 162 725		
	RFL 9 RFL 7.5 LITE THANG 9 RFL	 162 754		 162 577	 162 725		
	RF 11 SURE THANG 9 RF	 162 798		 162 577	 162 801		
	RFD 12 RFD 11 DEMO	 162 716		 162 577			
	RFD 14 RFD 14 DEMO	 162 716		 162 577		 162 660	
	FREEFLEX PLUS 14 FREEFLEX PLUS 11	 162 578		 162 506	 162 326		
	FREEFLEX PLUS 17	 162 578		 162 506	 162 326	 162 510	 162 502
	FREEFLEX PRO 18 X	 162 851	 162 847		 162 803	 162 502	
<b>Model</b>		<b>Brake</b>	<b>AFD</b>	<b>FREEFLEX PLUS Cover</b>	<b>ABS</b>	<b>Heel Glide Insert</b>	<b>Toe Cover</b>

# HEAD SCREW OVERVIEW - 07/08


































Model	Article																											Ski ≥ 140 cm			Ski < 140 cm		
		5.5 × 13.4	5.5 × 18.5	5.5 × 15.5	5.5 × 20.5	5.5 × 14.0	5.5 × 13.4	5.5 × 21.5	5.5 × 15.5	5.5 × 11.4	5.5 × 19.4	5.5 × 26.5	5.5 × 27.5	5.5 × 17.6	5.5 × 16.9	5.5 × 29.0	5.5 × 30.5	5.5 × 24.0	5.5 × 19.5	5.5 × 11.5	5.5 × 9.0	5.5 × 7.3	5.5 × 13.7	5.5 × 12.2	M6 × 12.8	5.5 × 12.1	5.5 × 14.4	M6 × 18.0	5.5 × 10.1	5.5 × 8.2			
JUNIOR RACING PLATE 14																																	
CARVE PLATE 13 SLR CARVE PLATE 9 SLR																																	
SL 45																																	
SL 75 (<140 cm) SL 70 AC (<140 cm) MOJO 7.5 (<140 cm)																																	
SL 75 ABS (< 140 cm)																																	
SL 100 SL 75 (≥140 cm) SL 70 AC (≥140 cm) MOJO 7.5 (≥140 cm)																																	
LD 12 CYBER																																	
RAILFLEX LITE BASE																																	
RFL 9 RFL 7.5 RFL 4.5 LITE THANG 9 RFL																																	
RAILFLEX BASE II																																	
RFD 14 RFD 14 DEMO RFD 12 RFD 11 DEMO RF 11 RF 9 W SURE THANG 9 RF																																	
FREEFLEX PLUS 14 FREEFLEX PLUS 11 LD 12 MOJO 11 SL 110 ABS GOLD THANG 12 LD SL 70 ABS (≥140 cm)																																	
FREEFLEX PLUS 17 MOJO 15																																	
MOJO 20 X																																	
FREEFLEX PRO 18 X																																	



## TYROLIA SPARE PARTS - 07/08

Model	Article												
		Brake		AFD		FREEFLEX PLUS Cover		ABS		Heel Glide Insert		Toe Cover	
SL 45			162 399		162 382								
SL 70 AC			162 764		162 382								
SL 75			162 764		162 509								
SL 100			162 642		162 509								
SL 110 CARVE ABS			162 642						162 577				
LD 12 CYBER LD 12			162 578						162 577				
RFL 4.5			162 753		162 382						162 725		
RFL 9 RFL 7.5			162 754						162 577		162 725		
RF 10			162 798						162 577		162 801		
RFD 11 RFD 11 DEMO			162 716						162 577				
FREEFLEX PLUS 15			162 578				162 506		162 326				
FREEFLEX PLUS 15			162 578				162 506		162 326		162 510		162 502
FREEFLEX PRO 18 X			162 851		162 847						162 803		162 502

# TYROLIA SCREW OVERVIEW - 07/08

Model	Article																												
		5.5 × 13.4	5.5 × 18.5	5.5 × 15.5	5.5 × 20.5	5.5 × 14.0	5.5 × 13.4	5.5 × 21.5	5.5 × 15.5	5.5 × 11.4	5.5 × 19.4	5.5 × 26.5	5.5 × 27.5	5.5 × 17.6	5.5 × 16.9	5.5 × 29.0	5.5 × 30.5	5.5 × 24.0	5.5 × 11.5	5.5 × 9.0	5.5 × 7.3	5.5 × 13.7	5.5 × 12.2	M6 × 12.8	5.5 × 12.1	M6 × 18.0	5.5 × 10.1	5.5 × 8.2	
CARVE PLATE 13 SLR CARVE PLATE 9 SLR JUNIOR RACING PLATE 11		Ski ≥ 140 cm																	Ski < 140 cm										
SL 45																													
SL 75 (<140 cm) SL 70 AC (<140 cm)																													
SL 100 SL 75 (≥140 cm) SL 70 AC (≥140 cm)																													
LD 12 CYBER SL 110 CARVE ABS																													
RAILFLEX LITE BASE																										Ski ≥ 140 cm		Ski < 140 cm	
RFL 9 RFL 7.5 RFL 4.5																													
RAILFLEX BASE II																													
RFD 11 RFD 11 DEMO RF 10																													
FREEFLEX PLUS 11 LD 12																													
FREEFLEX PLUS 17 FREEFLEX PLUS 15																													
FREEFLEX PRO 18 X																													

TYROLIA SPARE PARTS RENTAL 07/08

Model	Article	SYM PRO / SYM RENT							
		SP 130 ABS Demo Aero	SP 120 ABS SP 100 ABS	SP 90 ABS SP 75 ABS	SP 45	SR 100	SR 70	SR 45	BYS 100
Heel Track		162 607	162 607	162 607	162 394	162 437	162 545	162 394	
Heel Guide		162 622	162 622	162 795	162 534	162 420	162 535 <sup>1)</sup> 162 536 <sup>2)</sup>	162 537 <sup>*</sup> 162 538 <sup>**</sup>	
Mid Part Cover		162 608	162 608	162 796	162 618				
Mid Part Cover+Chip		162 620	162 620		162 619				
Brake		162 578	162 578	162 578	162 559	162 578	162 578	162 399	162 578
AFD					162 382	162 382	162 382	162 382	
ABS		162 634	162 634	162 634					
Toe Base Plate						162 790	162 790	162 791	
Heel Base Plate		162 605	162 605	162 605	162 555				
Toe Cover		162 660							

\* Heel Guide for „b-o“,  
\*\* Heel Guide for „j-w/f“,  
1) Heel Guide for „i-j“,  
2) Heel Guide for „q-r“

Model	Article	SYM PRO / SYM RENT							
		SP 130 ABS Demo Aero SP 120 ABS SP 100 ABS SP 90 ABS + Plate SP 75 ABS ≥ 140 cm + Plate	SP 90 ABS SP 75 ABS SP 45 + Plate	SR 100	SR 70 ≥ 140 cm + Plate	SR 70 < 140 cm	SR 45	BYS 100	BYS 100 + Protection Plate
162 419	5.5 x 17.6								
162 488	5.5 x 19.5								
162 426	5.5 x 16.9								
162 401	5.5 x 15.5								
162 416	5.5 x 19.4								
162 376	5.5 x 13.4								
160 018	5.5 x 18.5								
160 030	5.5 x 15.5								
162 423	5.5 x 21.4								
162 461	5.5 x 32.5								
162 458	5.5 x 29.0								
162 455	5.7 x 10.7								
162 417	5.5 x 26.5								
162 332	5.5 x 10.3								
162 429	5.5 x 24.5								
162 639	5.5 x 9.0								
162 640	5.5 x 7.0								
162 460	5.5 x 30.5								
162 383	5.5 x 21.5								
160 031	5.5 x 20.5								
162 418	5.5 x 27.5								
162 700	5.5 x 24.9								

\* 4 Screws for Toe Track

# MAINTENANCE & SERVICE

## VISUAL INSPECTION OF BINDING

In assembling a system for the skier, it is the responsibility of the shop to inspect and evaluate each equipment component. This inspection checklist should be followed before any mounting or adjusting is performed.

Ideally, they should be posted and used on the sales floor while the customer is still in the shop so that any deficiencies can be explained on the spot.

## CHECK SUITABILITY

- Is the binding model appropriate for the skier's ability?
- The binding must be compatible with the customer's boot/ski.
- The skier's release/retention setting should fall within the binding's adjustment range. Additionally, we recommend that the skier's setting not be closer than one number from the minimum or maximum settings on the binding in order to allow for future readjustment.
- Are the mounting screw lengths appropriate for the ski being used?

## CHECK THE CONDITION OF BINDING

- Are all parts present and in working order?
- Is the AFD surface smooth and secure?  
If not, it should be replaced.
- Are all mounting screws present or tight?
- Does the binding show signs of contamination?
- Has proper periodic lubrication been performed?  
Dried out or corroded bindings can function improperly.

## RETAIL TESTING

Completion and documentation of the following Retail Test Procedures is recommended for U.S.: required under the terms of the HEAD TYROLIA Dealer Indemnity Program.

These tests should be conducted any time work is performed on a ski/boot/binding system that may affect its release values. The procedure applies to all HEAD/TYROLIA alpine bindings, new as well as used.

1. Follow HEAD/TYROLIA procedures for inspection, mounting, adjustment, and maintenance as appropriate.
2. Confirm that toe and heel indicator values match those specified on the actual HEAD/TYROLIA Adjustment Chart.
3. Using a calibrated testing device, according to its instructions for use, "exercise" the binding by releasing it at least once in each direction (clock-wise and counter clock-wise at the toe, vertically at the heel). Then measure Twist and Forward Lean Torque Values. The middle quantitative value of 3 releases in each direction should be used as the test result.
4. Compare Twist and Forward Lean test results with the System Inspection Ranges on the actual HEAD/TYROLIA Adjustment Chart.
5. If any test results fall outside the System Inspection Range, consult HEAD/TYROLIA Troubleshooting Procedures which follow this section.
6. With testing complete, the HEAD/TYROLIA Certified Mechanic must complete and sign the workshop ticket. Be sure the Final Indicator Settings are correctly shown there.

The workshop ticket should simply reflect that the system has "passed all tests" or that "all manufacturer's procedures have been completed".

## REPLACING THE BRAKE

If the brake feels too hard or blocks during the hand test, if the brake arms are damaged, if the pedal is worn out or if a wider brake is necessary then the brake should be replaced immediately.

HEAD/TYROLIA offers for almost each binding, different brakes with wider (WIDE and FAT brakes) or longer (DRAGON brake) brake arms. Refer to the brake overview on page 56-59 for brake and binding compatibility. To change the brake, all you have to do is to unscrew the old brake and replace it with the proper brake previously selected for the binding. In order to fix the brake, tighten the screws.

On most Railflex and Railflex Lite bindings the brake is hooked into the heel housing and not fixed with screws. Slide the heel off from the rails and replace the brake (pict 69).



On Railflex Lite bindings the heel lever has to be opened and the brake pedal has to be in its top position to do this. (pict 70).



## REPLACING THE HEEL GLIDE INSERTS

### FOR FREEFLEX PRO 18 (X) AND FREEFLEX PLUS 17

Unscrew the brake and take it off. Open the heel-locking lever and pull off the heel. Remove the inserts and mount the new ones (pict 71).



## COLORS OF THE HEEL GLIDE INSERTS:

**FREEFLEX PRO 18 (X) ART. NR. 162 803 - GREY:**

**FREEFLEX PLUS 17 ART. NR. 162 510 - RED/YELLOW:**

Lubricate the new inserts with HEAD/TYROLIA grease, clean the heel track, and slide the heel back into the track. Lock the locking lever into the same position it was before, re-mount the brake and tighten the screws. For remounting the brake it is necessary that the cross-bolt of the brake is located under the hooks of the heel track. The brake has to be in the up-right-braking position (pict 72).

pict 72



## FOR MOST RAILFLEX (RF 11, RF 10, RF 9 W) AND ALL RAILFLEX LITE HEELS

Use 162 801 for RAILFLEX and 162 725 for RAILFLEX LITE. Remove the center screw and slide the binding off. Separate the heel from the Railflex band and turn the heel around. Remove the inserts and replace them with new ones (pict 73).

pict 73



## SPARE PART IDENTIFICATION

Most of the replaceable parts have an article number (000 000) imprinted on the bottom. Reference this number when you order spare parts to prevent confusion.

## LONG & SHORT SCREWS

Junior Bindings (DIN 7 or 7.5) are delivered with screws for ski lengths under 140 cm (penetration depth 6 mm). If they are mounted on longer skis, the screws have to be replaced with longer screws. (penetration depth 8 mm - see screw chart on page 50/51).

## TAPPING

HEAD/TYROLIA recommends tapping the drilled binding holes of any ski before mounting. Of course, there is a neverending discussion among the mechanics if this is really necessary. But the pros are convincing:

- smooth and easy mounting

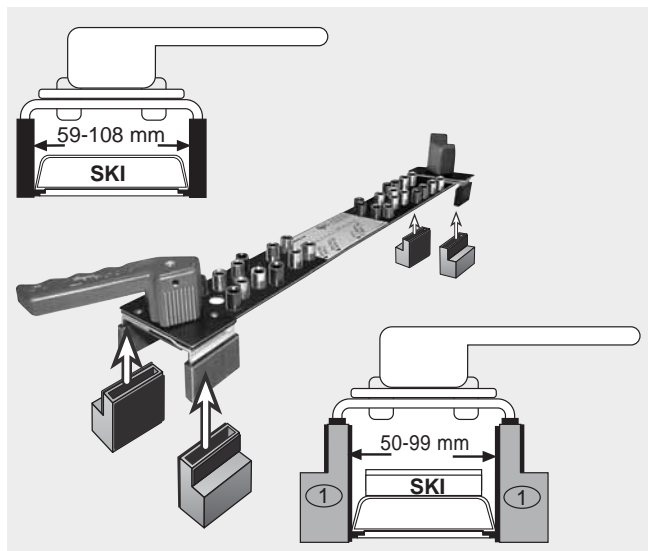
- reduced risk of stripping a screw
- same momentum adjustment of the screwdriver regardless of the ski material
- increased mounting quality/precision
- fewer pull outs.

## TEMPLATE „ADAPTER SET“

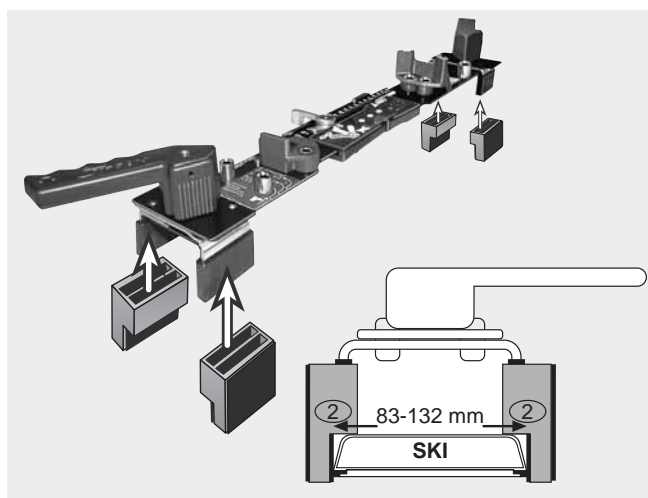
(art. nr. 162 569)

Compatible to all TYROLIA-Template.

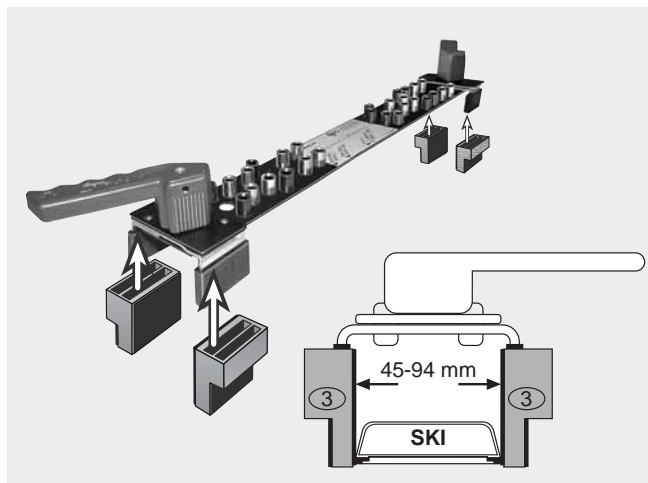
**WARNING:** Avoid dropping of the template. The clamping jaws could be damaged.



For skis with integrated our mounted plates.



For wide skis.



For children skis.



## RACING (X)-BINDINGS

Certain binding models are produced by HEAD/TYROLIA each year for the exclusive use of qualified competitors under the supervision of HEAD/TYROLIA Technical Specialists. These bindings are not covered by either the HEAD/TYROLIA Warranty or any Dealer Indemnity Program. We recommend you decline to service them, and warn against their use. DIN settings  $\geq 10$  do not satisfy the standard. Protection assertions are not applicable. Adjustments exceeding this range are made on one's own risk.

## CLEANING AND LUBRICATING

Ski bindings need regular maintenance. Proper function is no longer assured if this procedure is not followed periodically.

- Please use only HEAD/TYROLIA recommended lubrication:  
**TYROLIA grease - 160 052**  
**TYROLIA service - grease- spray - 162 779**  
Both have the same content, but the grease tube is for more precise lubrication and the spray is suited for spots which are hard to reach with the tube.
- Clean the surfaces with a dry rag or warm water and mild soap.
- Avoid any contact with aggressive solvents or degreasers!
- Don't use cleansers!
- High pressure cleaning is not recommended. It might have the negative side effect of washing away the lubricating films.

## LUBRICATING THE TOE PIECE

### AERO TOES

- Lubricate the adjustment screw and the guides of the main spring in the housing with the HEAD/TYROLIA service - grease spray.

### ALL SYMPRO/SP TOES

- In case of friction in the track system: Mark the toe position, open the SP hand lever and slide the toe piece off.
- Dry clean the track and the toe guide base gently using a plastic brush.
- Then lubricate the locking mechanism at both sides of the toe guide base.
- Lubricate also both sides of the track guide over the entire length.

pict 74



## LUBRICATING THE HEEL

### ALL RENTAL BINDINGS

- Mark heel position, open the hand lever and slide the heel off backwards. At the SR 100 and SR 70 the guide lock

has to be opened with a screwdriver (pict 75) to get the binding off.

pict 75



## LUBRICATE

- the edge of the release cam under the heel lug as shown in pict 76.

pict 76



- both sides of the heel track (inside) over the entire length.
- the bearings of the opened hand lever on both sides (pict 77).

pict 77



- the guiding channel of the release setting adjustment screw.

After finishing the heel lubrication slide on the heel and lock it in its original position.

## SL 45 AND SR 45

### LUBRICATE

- the contact areas between housing and the release cam on the frontside and the backside as shown in pict 78 and 94.

pict 78



- both sides of the heel track (inside) over the entire length.
- the guiding channel of the release setting adjustment screw (pict 79).

pict 79



After finishing the heel lubrication slide on the heel and lock it in its original position.

## NOT TO BE LUBRICATED

The locking element and the corresponding holes in the heel track should be cleaned but not lubricated. This should prevent dirt accumulation in this area, which could interfere with the ease of handling.

## TEST YOUR DRILL TEMPLATE

A worn or damaged drill template could create a lot of trouble. Please check your templates periodically:

1. Position the fully extended drill template on a discarded ski.
2. Turn the clamping lever to open the clamping jaws of the mounting template.
3. Position the template properly on the ski so that the boot center marking is aligned with the mounting point described on the ski.
4. Let go of the clamping lever. The template clamps automatically.
5. Drill all the holes.
6. Remove the mounting template and clean the ski.
7. Measure the holes with a slide gauge.
8. The distance of the screw holes to the edge of the ski must be equal for each pair of related holes. The deviation must not be more than 1 mm.
9. The mounting template must be discarded if greater deviations occur!

## REPAIR OF DAMAGED MOUNTING HOLES OR BROKEN SCREWS

For repairing damaged holes, we suggest our special "Repair Set" – art. nr. 162 127.

It consists of a hollow drill bit and plastic inserts (pict 80).

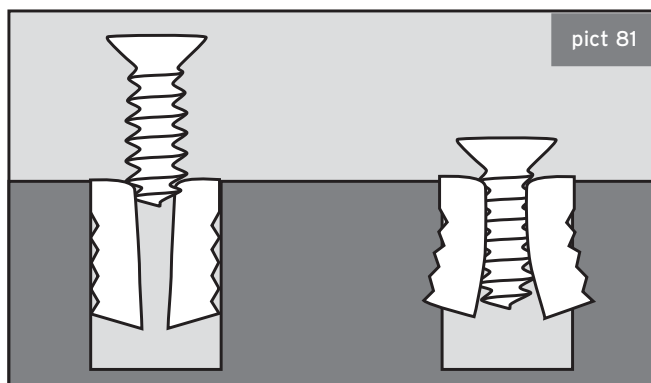
pict 80



You can extract broken screws too. Remove the binding from the ski.

Drill with the hollow drill through the bushing of the appropriate drill template and drive in the plastic insert. Mount the binding again (pict 81).

pict 81



## SEALING OLD MOUNTING HOLES










For sealing old holes you can use wood-plugs or plastic plugs (art. nr. 160 857), if not otherwise specified by the ski manufacturer.

# TROUBLESHOOTING (INCLUDING RENTAL)

Problem	Possible Reason	Solution
Difficulty when stepping in	Non-standard boot sole	Test and select a new boot
	Forward pressure too high	Readjust according to instructions
	Brake jams	Clean & lubricate; replace
Brake does not retract	Obstruction under the brake	Remove, clean, lubricate
	Brake arm bent	Replace brake
	Ski obstructs brake	Replace the standard brake with a wider brake, accordingly to the ski width.
Boot fails pre-season test	Low-quality boot material	Replace boot
	Excessive wear or contamination	Clean, repair or replace boot
	Reference binding worn	Recheck reference binding with a boot that has passed
	Boot does not meet ISO 5355	Replace boot
	Improper use of testing device	Check calibration and operating technique
Excessive in-season class 1 or class 2 deviations	Excessive boot sole wear or contamination	Clean, repair or replace boot
	Inadequate binding service/lubrication	Conduct recommended maintenance every 15–20 days of use
	Improper use of testing device	Check calibration and operating technique
	Indicator correction factor needed	Test system according to pre-season testing. Define indicator correction factor for subsequent adjustments
SINGLE CODE on binding interferes SINGLE CODE on boot	Incorrect template adjustment used when mounting	Set template to proper length and remount heel
	Incorrect track guide scale chosen for given mounting position	Choose binding according to given mounting position

Problem	Possible Reason	Solution
SYMPRO toe wobbles in this track	Toe locking lever not properly engaged in locking holes	Remove toe, clean track. Be sure toe piece locks into place
CYBER or FREE FLEX-drill pattern not fitting	Toe / equalizing bridge in wrong position	Dismount, place toe in correct position
	Drill template not locked	Readjust, drill new holes
Heel slides backwards when customer steps in	Rear locking lever not fully closed or boot length exceeds adjustment range	Lever should fully engage locking teeth in slots on track or boot sole length exceeds binding range
Binding fails pre-season test: release values too high or too low	Reference boot contaminated or worn	Clean or replace boot as indicated by clean vs. lube test result
	Forward pressure set incorrectly	Readjust to TYROLIA recommendations
	Incorrect or off-center-mounting	Check the template. Remount using template correctly
	Improper use of testing device	Check calibration and operating technique
Adult bootsole does not fit into Junior toe lug	Boot sole exceeds the standard tolerance	Clean AFD and boot sole, check standard tolerance, change boot
Diagonal or Railflex heel wobbles in the track	Heel glide inserts worn	Remove heel and replace plastic heel guides

# ADJUSTMENT

		SINGLE CODE									
		a-n	o-s/B	t/C-G	H-L	M-Q	R-6				
											
		1	2	3	4	5	6	5	18		
		≤ 250	251-270	271-290	291-310	311-330	≥ 331	8	29		
		SKIER CODE									
		kg/lbs	cm/Ft'In"								
		10-13 kg 22-29 lbs		A	0,75	0,75					
		14-17 kg 30-38 lbs		B	1,00	1,00	0,75				
		18-21 kg 39-47 lbs		C	1,50	1,25	1,00				
		22-25 kg 48-56 lbs		D	1,75	1,50	1,50	1,25			
		26-30 kg 57-66 lbs		E	2,25	2,00	1,75	1,50			
		31-35 kg 67-78 lbs		F	2,75	2,50	2,25	2,00			
		36-41 kg 79-91 lbs		G	3,50	3,00	2,75	2,50			
		42-48 kg 92-107 lbs	≤ 148 cm ≤ 4'10"	H		3,50	3,00	3,00			
		49-57 kg 108-125 lbs	149-157 cm 4'11"-5'1"	I		4,50	4,00	3,50			
		58-66 kg 126-147 lbs	158-166 cm 5'2"-5'5"	J		5,50	5,00	4,50			
		67-78 kg 148-174 lbs	167-178 cm 5'6"-5'10"	K		6,50	6,00	5,50			
		79-94 kg 175-209 lbs	179-194 cm 5'11"-6'4"	L		7,50	7,00	6,50			
		≥ 95 kg ≥ 210 lbs	≥ 195 cm ≥ 6'5"	M			8,50	8,00			
				N			10,00	9,50			
				O			11,50	11,00			
				P			12,00	11,50			
										118	540



## CLASSIFY YOURSELF

### DETERMINING YOUR SKIER TYPE IS YOUR RESPONSIBILITY!

Your Skier Type, height, weight, age and boot sole length are used by the shop technician to determine the release/retention settings for your bindings. Consult these descriptions to select your classification. Be sure to provide accurate information. Errors increase your risk of injury.



**TYPE I**

Cautious skiing on smooth slopes of gentle to moderate pitch.

Skiers not classified as Types I or III.

**TYPE II**



**TYPE III**

Fast skiing on slopes of moderate to steep pitch.






Skiers who designate themselves as Type I receive lower than average release/retention settings. This corresponds to an increased risk of inadvertent binding release in order to gain releasability in a fall. This type also applies to entry-level skiers uncertain of their classification.

Skiers who designate themselves as Type II receive average release/retention settings appropriate for most recreational skiing.

Skiers who designate themselves as Type III receive higher than average release/retention settings. This corresponds to decreased releasability in a fall in order to gain a decreased risk of inadvertent binding release. Type III settings should not be used by skiers of less than 22 kg/48 lbs.

If you are unsatisfied with the release/retention settings that result from your classification please mention this to your binding technician.

# RELEASE/RETENTION ADJUSTMENT TABLE

		SINGLE CODE								
		a-n	o-s/B	t/C-G	H-L	M-Q	R-6			
								Mz Nm	My Nm	
		SKIER CODE	1	2	3	4	5	6		
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	
		P					12,00	11,50	105	452
									118	540

## HOW TO USE THE RELEASE/RETENTION ADJUSTMENT TABLE:

- Determine the Skier Code by locating the skier's weight in the first column and the skier's height in the second column. If the height and weight are not on the same line select the Skier Code closer to the top of the chart.
- The Skier Code found in step 1 is for Type I skiers. For Type II skiers move down the chart toward the bottom one Skier Code. For Type III skiers move down two Skier Codes.
  - If the skier is age 50 or older or under 10 move up the chart one Skier Code toward the top. For skiers 13 kg/ 29 lbs and under, no further correction is required.
- Find the column that corresponds to the skier's boot sole measurement in millimeters.
- The value where the Skier Code and the boot sole measurement intersect is the initial indicator setting for the skier.  
*If the intersection of the row and column falls in a blank box, do not move up or down the chart. Move sideways on the same row to the nearest box showing a visual indicator setting.*
- This value should be recorded on the workshop form under Initial Indicator Settings.

## MECHANICAL SYSTEM TESTING

1. Adjust the bindings toe and heel indicators to the Initial Indicator Setting.
2. Use a calibrated torque measuring device according to the instructions provided by the supplier.
3. Exercise that binding by release it at least once in all direction.
4. Three tests are required in each direction. The middle quantitative value of the three releases should be used as the test result.
5. Using the previously determined Skier Code slide across the chart to the column representing twist torque reference values.
6. If the test result is within one torque value above to one torque value below the reference value, it is in the Inspection Range. These results are acceptable and no further adjustment is necessary.
7. If the test result is within two torque values above to two torque values below the reference value, it is in the In-Use Range. The indicator value should be readjusted and the system retested so that it falls in the Inspection Range. Record the corrected indicator value in the box for final release/ retention settings.
8. If the test result value falls out of the In-Use Range the system should be thoroughly inspected for the following:
  1. Correct forward pressure
  2. Correct Sole-hold down adjustment
  3. Worn or contaminated AFD's
  4. Out of standard boot soles
 No work can be performed on the system until these problems are corrected.
9. Check the heel for forward lean the same way, determining the middle quantitative value of three vertical releases. Adjust if necessary.
10. Record final indicator settings on the workshop form in the area for final release/retention settings.

## TYPE I SKIERS

- Cautious skiing on smooth slopes of gentle to moderate pitch.

Skiers who designate themselves as Type I receive lower than average release/retention settings. This corresponds to an increased risk of inadvertent binding release in order to gain releasability in a fall. This type also applies to entry-level skiers uncertain of their classification.

## TYPE II SKIERS

- Skiers not classified as Type I or Type III.

Skiers who designate themselves as Type II receive average release/retention settings appropriate for most recreational skiing.

## TYPE III SKIERS

- Fast skiing on slopes of moderate to steep pitch.

Type III settings should not be used by skiers of less than 22 kg/48 lbs. Skiers who designate themselves as Type III receive higher than average release/retention settings. This corresponds to decreased releasability in a fall in order to gain a decreased risk of inadvertent binding release.

### NOTE:

If the skier reports release/retention problems see the chapter "trouble shooting release/retention problems", page 75 in the manual.

Skiers who desire release/retention settings lower than Type I may designate themselves (I-). Type I- is inappropriate for skiers 17 kg/38 lbs or less.

Type I- Move up the table one skier code.

Skiers who desire release/retention settings higher than Type III may designate themselves (III+).

Type III+ -Move down the table three skier codes.

Skiers may select skier type designations that are different for twist and forward lean. In such a case, the selection shall be indicated by a slash separating twist and forward lean selections, in that order ( for example, K/L, K for the toe and L for the heel.

# TROUBLE SHOOTING RELEASE/RETENTION PROBLEMS

## IF THE SKIER REPORTS A RELEASE OR RETENTION PROBLEM:

- Re-inspect the equipment to make sure that all components are in good condition and function properly.
- Test the system to make sure that it is calibrated properly.
- Have the skier use the "Classify Yourself" materials to make certain that the correct Skier Type has been selected.

If component inspections and a calibration check do not reveal a problem the skier may be requesting discretionary settings.

## INFORMATION FOR SKIERS REQUESTING DISCRETIONARY SETTINGS.

1. Your normal release/retention settings comply with ISO/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.

# HEAD/TYROLIA CERTIFICATION REQUIREMENTS

This section must be read, and thoroughly understood, prior to completion of HEAD/TYROLIA's Employee Training Documentation Form and viewing the 2007/08 HEAD/TYROLIA Certification Video.

At TYROLIA we realize that the quality added to our products in your shop is every bit as important as the quality we build in at the factory. The HEAD/TYROLIA Retailer Indemnity Program, which includes in depth technical training, is a key element of maintaining consistent quality.

## TECHNICAL INFORMATION

Procedures for installation, release/retention adjustment, testing, troubleshooting and record keeping should always be taken from the current season's HEAD/TYROLIA Technical Manual.

## EMPLOYEE TRAINING

This manual provides a depth of information unprecedented in the industry, it is here to help you fulfill the shop's responsibility to bring new employees to a basic level of competence. It also addresses our desire to provide information specific to selling, installing, function checking, and maintaining HEAD/TYROLIA products. Last but perhaps most important, we produced it to help you understand why HEAD/TYROLIA represents the state of the art in bindings. We hope you will use it as part of a well planned and professional employee training program which goes far beyond properly installing bindings. Done well it will translate into consistent quality and the high level of satisfaction your customers deserve. Look at it as one of the first steps in your Total Quality Management program.

**NOTE:** Hands on training is the best training - An ideal task that can be incorporated into the training is preseason testing. This will give your trainees hands on experience operating a testing device and adjusting ski/boot/binding systems. Other tasks, such as routine rental maintenance, can also be done during the training period.

## SHOP REQUIREMENTS

Each retail location must have:

- A current HEAD/TYROLIA Authorized Retailer Agreement on file with HEAD TYROLIA WINTERSPORTS INC., USA / HEAD TYROLIA SPORTS CANADA INC.
- A current HEAD/TYROLIA Binding Indemnification Agreement on file with HEAD TYROLIA WINTERSPORTS INC., USA / HEAD TYROLIA SPORTS CANADA INC.
- At least one HEAD/TYROLIA Certified Technician employed per location.
- The required equipment for installing and testing HEAD/TYROLIA bindings. All Agreements and Certifications must be valid for the current season.

## REQUIRED SERVICE SHOP TOOLS

This list is the bare minimum a shop can survive with.

- Tape Measure
- HEAD/TYROLIA Templates
  - # 92 W (Blue)
  - # 94 W (Violet)
  - # SP 2003 W (Red)
  - # SR 2003 W (Yellow)
  - # RAILFLEX & RAILFLEX Lite (grey)
- Variable speed, reversible electric drill

- HEAD/TYROLIA Step Drill Bits (or equivalent)
  - 4.1 Ø x 9 mm
  - 4.1 Ø x 7 mm
  - 3.5 Ø x 9 mm
  - 3.5 Ø x 7 mm
- Tap, Tap Brace and Tap Guide
- HEAD/TYROLIA Pozidrive No. 3 screwdriver (or equivalent)
- HEAD/TYROLIA large slot screwdriver
- Current HEAD/TYROLIA retention/release adjustment table
- Approved mechanical testing device
- Screw extractor
- Tap extractor
- Hole plugs, plastic & wood
- HEAD/TYROLIA threaded plastic ski inserts
- Chisel
- Hammer

## CREATING AN INFORMED CONSUMER

Customers, whether rental or retail, come to your shop with all levels of knowledge. The range extends from true experts who really know the sport and their equipment needs, to never-ever skiers who know they must rely totally on your expertise.

A key role played by a good shop, and a requirement in the US and Canada under the "HEAD/TYROLIA Retailer Indemnity Program", is providing information, guidance and instruction to all customers.

## SPECIFICALLY THIS MEANS:

- Providing product and suitability information to help customers make an informed choice of which equipment models are right for them. The amount and type of advice given will naturally be different for each customer.
- The shop's responsibility is to be sure that each product sold or serviced is appropriate for the needs of its user.
- The shop must provide accurate information about the nature of the sport, and what equipment can and cannot do. Inform customers that there are risks inherent in the sport of skiing that no binding can protect against. It is imperative that each customer be informed there are limitations to the protection their equipment can afford and that injuries can and do occur in the normal course of skiing.
- Under no circumstances should you make any warranties or assertions about the customers safety on the hill. Speaking simply, no binding is "absolutely safe". Well designed shop record forms address the disclosure and agreement subject very directly and professionally. Use them to your advantage by making sure customers read and understand the form before signing it. The following points must be explained to all customers (rental or retail) before they leave the shop with their equipment (consumer awareness checklist):
  - Go through your workshop ticket and fully explain each task that has been performed by the shop.
  - Explain how to use bindings and equipment. Let customers put on their boots and step in and out of the binding if need be.
  - Remind skiers to clean their boots and bindings each time before stepping in.



Tell them that they should always walk through clean snow before entering the bindings.

- Deliver the “Instructions For Use” booklet to retail customers. It is an important document and is essential for warranty service.
- Advise the customers to return to your shop periodically for maintenance and a system inspection. The service interval is once each 15-20 days of skiing, or annually, whichever comes first. Failure to adhere to this service interval will void the HEAD/TYROLIA Limited Warranty.
- Recommend care in transport: heels closed, bindings covered.
- Recommend care in storage: dry, moderate temperature, heels closed, boots not in bindings.
- Explain that bindings and boots must be kept clean for optimal function.
- Skiers should make a visual inspection of their system before each use, including the AFD pad which should be checked for wear, damage or loss. It is also wise to visually verify the release indicator value.

#### NOTE:

- The workshop ticket must be read, initialled and signed by the customer. If the customer is a minor, his or her signature should be obtained, along with that of the parent or guardian. If a parent or guardian is not available, the equipment should only be released if the proper signatures have been obtained.
- Remember, the customer’s signature is required in two places under the terms of the HEAD/TYROLIA Retailer Indemnity Program. In order to avoid misunderstandings with the customer, please inform them of this requirement when equipment is taken in for service.
- If the customer is not the end user, every attempt should be made to make certain all aspects of the system are explained to the user, and to obtain his/her signature on the workshop ticket.

## ABOUT TESTING

Testing is required for all HEAD/TYROLIA retail and rental systems as specified in this manual. Many consumers view system testing as a valuable service provided by professional shops. They expect their equipment will be properly tested, and are willing to pay for it. On the other hand, some customers may be reluctant to accept any additional costs. They may be especially resistant to charges made by the shop for testing and inspections of equipment which is being serviced. Following are some communication techniques that have been found to be helpful:

- Post your shop’s testing policy. A clear statement, prominently displayed, will reassure customers that they’re all receiving the same treatment. Consider a text similar to the following:  
“Industry standards have defined shop testing procedures for your ski/boot/binding system. We’re proud to offer this service since it is in your best interest. While even the best ski equipment cannot eliminate all risks of injury, we strive to maximize your enjoyment of the sport by verifying the settings and function of your equipment. The extra time and expense of system testing will pay off for you in a better skiing experience.”
- Make your service shop a showplace. Place your testing bench in a prominent location. Many customers like to know what kind of work you’re doing for them. If you get a question, offer to let the skier watch.
- Proudly display diplomas and certificates received by your mechanics. Make their expertise known to your customers.

- Above all, don’t apologize for testing. It’s a valuable and necessary service well worth the cost.

## ABOUT TESTING DEVICES

ASTM and ISO have defined specifications for ski equipment system testing devices. Only those devices that meet these recognized performance standards should be used to test systems that include HEAD/TYROLIA bindings. You should make it the responsibility of your testing device supplier to verify that their device fulfills all ASTM/ISO requirements.

Each device has its own unique features and some will fit your shop’s needs better than others. Therefore, we can’t recommend a single device as universally “the best”. The following points, however, can be used as a guideline to getting the most out of your choice:

- Training is very important in the use of any device. Read the instructions thoroughly, and practice!
- To insure reproducibility from one technician to another a “Multiple Operator Reproducibility Test” should be performed by all users of the testing device. This simply requires that all technicians join in a “round robin” exercise where each tests the same system with the same test device. The goal is to verify that the testing techniques are the same and that all test results are comparable. Speak with your testing device supplier for the details on how to conduct this program.
- Beware of “black box” calculations that may be performed by some electronic testers, the calculations performed to arrive at an indicator value or determine an appropriate Torque Range could be based on old standards. Check the current HEAD/TYROLIA Adjustment Chart for applicable values.
- Periodic calibration of these devices is important, and this information should be documented in your shop records.
- Most important, never blindly trust the values given by any test device. This is just one tool to use in your evaluation of a complete release/retention system.

## MAINTENANCE

Inform every customer of the simple fact that periodic maintenance is needed. If they don’t bring their gear back for regular function checks, it is unreasonable to expect it to work as designed. Studies have shown that binding systems which have not been properly maintained have serious injury rates very much higher than those which have.

Following this simple, logical guideline is the single most effective way to decrease serious injuries dramatically. Have the system serviced by a HEAD/TYROLIA certified technician once each 15-20 days of skiing, or annually, whichever comes first.

## HEAD/TYROLIA RETAILER INDEMNITY PROGRAM

Today's equipment may help reduce certain hazards involved in the sport, but the risk of injury remains. The HEAD/TYROLIA Retailer Indemnity Program is designed to help formalize service procedures and minimize the risks to both you and your customer.

Under the plan, HEAD/TYROLIA will defend and indemnify the Authorized Retailer in bodily injury claims when certain conditions are met, including following all HEAD/TYROLIA required procedures.

The program benefits are not without limits, indemnification is not insurance, and it does not eliminate the need for a shop to have adequate insurance of its own. But, for the shop willing to make the investment in doing a quality job as an assembler of equipment systems from components, it is a key element in their Risk Management plan.

**This is only a summary of the HEAD/TYROLIA Retailer Indemnity Program, complete requirements are listed in the current HEAD/TYROLIA Binding Indemnification Agreement. You should read this Agreement carefully.**

Retailer benefits under the terms of the plan are based, in part, on the adequacy of the service work performed by the mechanic. For this reason, thorough employee training is essential. This manual, a tech video and technical seminars are presented by HEAD/TYROLIA to help define appropriate shop procedures.

It is the responsibility of the HEAD/TYROLIA Authorized Retailer to see that all technical and product information materials provided by HEAD TYROLIA WINTERSPORTS INC., USA / HEAD TYROLIA SPORTS CANADA INC. are ordered and available in their shop.

This should be done with the aid of your HEAD/TYROLIA Representative while placing your TYROLIA pre-season binding order.

### THE HEAD/TYROLIA RETAILER INDEMNITY PROGRAM APPLIES ONLY TO THE FOLLOWING BINDINGS:

#### HEAD LINE 2007/08:

##### COMPETITION

FREEFLEX PRO 20 (X) RD, FREEFLEX PRO 20 (X) RS, FREEFLEX PRO 18 (X) Sale, FREEFLEX PRO 16 (X) RD

##### RACING

FREEFLEX PLUS 17, FREEFLEX PLUS 14, FREEFLEX PLUS 11

##### RAILFLEX SYSTEMS

RFD 14, RFD 14 DEMO, RFD 12, RFD 11 DEMO, RF 11, RFL 7.5, RFL 4.5

##### LIGHT DIAGONAL

LD 12 CYBER, LD 12, LD 12 WIDE BRAKE

##### MOJO

MOJO 20 (X), MOJO 15, MOJO 11, MOJO 7.5

##### SUPER LIGHT

SL 110 ABS, SL 100

##### WOMEN

GOLD THANG 12 LD, SURE THANG 9 RF, LITE THANG 9 RFL

##### JUNIOR

SL 75 ABS, SL 75, SL 70 AC, SL 45

#### TYROLIA LINE 2000/01/02/03/04/05/06/07/08:

##### COMPETITION

MOJO 20 (X), FREEFLEX PLUS 20 (X) RD, FREEFLEX PLUS 20 (X) RS, FREEFLEX PLUS 18 (X) Sale, FREEFLEX PLUS 16 (X) RD, FREEFLEX PLUS 15 (X) RD, FREEFLEX PLUS 10 X, FREEFLEX PLUS 8 X

##### RACING

FREEFLEX PLUS 17, FREEFLEX PLUS 15, FREEFLEX PLUS 14, FREEFLEX PLUS 11, FREEFLEX PLUS 10, FREEFLEX PLUS 8, FREEFLEX PLUS 8 LD, FREEFLEX PLUS 7, MAD FLEX 9

##### RAILFLEX SYSTEMS

RFD 14, RFD 14 DEMO, RFD 12, RFD 11, RFD 11 DEMO, RF 11, RF 10, HD 14 FREEFLEX, HD 14 FREEFLEX DEMO, LD 12 RAILFLEX, LD 12 RAILFLEX, LD 10 RAILFLEX, SLD 11 RAILFLEX, SLD 11 RAILFLEX DEMO, SL 11 RAILFLEX, SL 10 RAILFLEX, LD 12 RAIL, LD 10 RAIL, SLD 11 RAIL, SLD 10 RAIL, RFL 9, RFL 7.5, RFL 7, RFL 4.5, SL 9 RAILFLEX LITE, SL 7 RAILFLEX LITE, SL 4.5 RAILFLEX LITE

##### LIGHT DIAGONAL

LD 12 CYBER, LD 12, LD 12 WIDE BRAKE, LD 12 S, SLD 11 ABS

##### CYBER

CYBER CARBON D 9 SX, CYBER CARBON D 9, CYBER D 8 SX, CYBER D 8, CYBER SL 110

##### MOJO

MOJO 15, MOJO 11, MOJO 7

##### SUPER LIGHT

SL 110 CARVE ABS, SL 100 CARVE ABS, SL 100 CARVE, SL 110 S ABS, SL 110 ABS, SL 110, SL 100 ABS, SL 100, SL 100 WIDE BRAKE

##### WOMEN

RF 9 W, RFL 9 W, SLW 9 RAILFLEX, SLW 90 ABS

##### JUNIOR

FREEFLEX JUNIOR RACE 11, SL 79 CARVE ABS, SL 70 ABS, SL 70, SL 70 AC, SL 45

##### RENTAL

SP 130 ABS DEMO AERO, SP 120 ABS, SP 120 ABS WIDE BRAKE, SP 100 ABS, SP 90 ABS, SP 75 ABS, SP 70 ABS, SP 45, SYMPRO 9 ABS PROMO, SYMPRO 9 ABS, SYMPRO 8 ABS, SYMPRO 8, SYMPRO 7, SYMPRO4, SYMPRO 2 SL, SR 100, SR 70, SYMRENT DEMO, SYMRENT 7, SYMRENT 4, SYMRENT 2 SL, SYMRENT 2, BYS 100 B, BYS 100 Y, BYS 100 S

### RETAILER AGREEMENTS AND INDEMNIFICATION AGREEMENTS

Both Agreements must be completed annually. This years Retailer and Indemnification Agreements should already be completed, if not please contact customer service or your sales rep.

Completed Retailer Agreements, Indemnification Agreements and Employee Training Documentation Forms should be received at HEAD TYROLIA WINTERSPORTS INC., USA / HEAD TYROLIA SPORTS CANADA INC no later than December 31, 2007.

An administrative fee of \$15 Cdn per year for each Certified Mechanic (maximum \$75 Cdn per location) will be charged by TYROLIA in Canada and \$30 US per location in the USA. If a retailer loses his only TYROLIA Certified

Mechanic, he must notify HEAD TYROLIA WINTERSPORTS INC., USA / HEAD TYROLIA SPORTS CANADA INC in writing within 48 hours.

## SUMMARY OF REQUIREMENTS

These basic requirements help assure that the end product which is delivered to the customer is appropriate.

- Signed, current copies of the HEAD/TYROLIA Authorized Retailer Agreement and the HEAD/TYROLIA Bindings Indemnification Agreement must be on file with HEAD TYROLIA WINTERSPORTS INC., USA / HEAD TYROLIA SPORTS CANADA INC.
- The shop must adhere to 2007/08 HEAD/TYROLIA procedures for selection, mounting, adjusting, testing and/or servicing of system components as detailed in this manual.
- The actual HEAD/TYROLIA retention/release adjustment, or its equivalent, must be used.
- A HEAD/TYROLIA Certified Mechanic must properly mount, inspect, adjust and/or service system components and/or check to make sure all service, adjustments, testing and record keeping were properly completed.
- Mechanics must receive full training, including hands-on practice in the use of system testing devices, as provided by the testing device supplier. A multiple operator reproducibility test should be completed and results documented by the shop each season.
- The shop must maintain records of all retail/rental testing and/or service work for 5 years or for the length of the statute of limitations in the state where your business resides, whichever is longer. Bear in mind that the statute of limitations for minors begins only when they come of legal age.

## PAPERWORK REQUIREMENTS

TYROLIA Retail/Rental Workshop tickets have proven their importance in the legal system, and we strongly recommend their use (see elsewhere in this manual). At the very minimum, records must contain the following information:

- Identification of shop and customer: name, address, phone.
- Date of transaction or work.
- Information on which binding settings are based: skier height, weight, skier type, age, boot sole length.
- A full description of the equipment being serviced or rented (skis/boots/bindings), including but not limited to brand, model, size and serial numbers.
- Skier code, "Initial" binding release/retention settings, and final settings.
- Signed, dated statement from the HEAD/TYROLIA Certified Mechanic that all manufacturer's procedures have been completed, and the signature of the mechanic who performed the service (if they are different individuals).
- An agreement dated and signed by the customer, the language of which is substantially similar to the current HEAD/TYROLIA form. This agreement must include the following points:
  - User verification of skier information.
  - WARNING that there are risks of injury inherent in the sport of skiing and that the customer accepts those risks.
  - DISCLOSURE of the equipment's limitations, that it will not release, retain or prevent injury under all circumstances, and is no guarantee of the user's safety.
  - RELEASE language whereby the user releases the retailer, manufacturer and distributor from liability and

damages, to the fullest extent allowed by law.

- STATEMENT that no warranties of any kind are offered by the shop beyond those offered by HEAD/TYROLIA.
- AGREEMENT that instruction in the use of the equipment has been received, that the skier height, weight, skier type, age, boot sole length, as well as the settings on the binding match those on the record form, and that the skier will inspect the system, including the binding's AFD, before each use.
- Signatures by both the customer and HEAD/TYROLIA Certified Mechanic are required by for the HEAD/TYROLIA Retailer Indemnity Program.

### NOTE:

- Any changes in documentation requirements must be authorized in writing by HEAD TYROLIA WINTERSPORTS INC; USA or HEAD TYROLIA SPORTS CANADA INC.

POST ACCIDENT REPORT (SEE SAMPLE IN APPENDIX).

In addition to the above information on the system's performance, fill out a Post Accident Report when you become aware that an injury has occurred. Keep this document for 5 years or the duration of the statute of limitations for minors, whichever is longer.

## IN THE EVENT OF AN INJURY CLAIM

- Notification to HEAD TYROLIA WINTERSPORTS INC., USA / HEAD TYROLIA SPORTS CANADA INC. by retailer, of any bodily injury claim, must be made in writing on or before the tenth calendar day from the date on which the retailer first received notice of any such claim. In the event of a lawsuit the retailer must notify his/her own attorney and must cooperate with HEAD TYROLIA WINTERSPORTS INC., USA / HEAD TYROLIA SPORTS CANADA INC. and respond to requests as required.
- In a rental situation, from the time that any injury claim is made to the retailer, the retailer must maintain possession of any equipment that may have been involved in the accident. (Equipment may be returned to service upon passing a post-accident investigation.)
- In the event of an injury, a Post Accident Report must be completed and retained if the shop is in possession of all components of the system. If the entire system is not available for test it should be noted and all pertinent information such as equipment condition, visual indicator settings, and any equipment abnormalities should be recorded.

### NOTE:

HEAD/TYROLIA reserves the right to deny indemnity if HEAD/TYROLIA requirements are not fulfilled. Strict compliance by the dealer with all requirements, as stated in the HEAD/TYROLIA Binding Indemnification Agreement, is a condition precedent to favorable consideration of a request for indemnity.

This is only a summary. The precise requirements of the HEAD/TYROLIA Binding Indemnification Program are contained in your HEAD/TYROLIA Binding Indemnification Agreement.

# THE HEAD/TYROLIA LIMITED WARRANTY

HEAD/TYROLIA warrants to the initial purchaser that its 600, 700 series and newer bindings are warranted to be free from defects in materials and workman-ship for a period of four years from date of purchase or five years from date of manufacture, whichever period expires earlier.

For rental bindings it is 2 years from date of purchase.

HEAD/TYROLIA disclaims all other warranties express or implied (USA and Canada).

Buyer's sole remedy under the above warranty or under any implied warranty is limited to the repair or replacement, at HEAD/TYROLIA's sole option, of subject product or parts thereof. Buyer should return the subject product or parts to the place of purchase for warranty service.

This limited warranty applies only to products that have been subject to normal use and that have been properly serviced.

It excludes parts subject to wear such as AFD's, brakes, windows, plastic or metal tracks, etc. The "Instructions for Use" booklet (warranty), proof of purchase and proof of periodic service must accompany all bindings returned for replacement consideration.

## LIMITATION OF LIABILITY

In no event shall HEAD/TYROLIA be liable for incidental, consequential statutory or exemplary damages, whether the action is in contract, warranty, negligence or strict liability, including without limitation, loss to property other than the binding, loss of use of the binding or other property, or other economic losses. HEAD/TYROLIA shall not be liable for contribution or indemnification, whatever the cause. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Some states do not allow the exclusion of limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

## SERVICE UNDER THE HEAD/TYROLIA WARRANTY

Products requiring service under the terms of the warranty should be dealt with as follows:

- Send the complete binding set to the authorized distributor where evaluation will be made and warranty action taken if required.
- If a clear warranty situation exists, and the shop wishes to replace the pair of bindings products out of stock for a customer, the shop may do so after the approval of the ski warranty department of your HEAD/TYROLIA distributor. Be sure to check suitability and mounting hole pattern before making a change of model.
- When possible, the replacement should be of the same model as the returned product.
- If the same model is not available, the shop should contact the authorized HEAD/TYROLIA distributor warranty department for authorization before a more expensive model is selected for replacement.
- If a replacement is made from retailer stock, the complete binding set should be returned to the authorized HEAD/TYROLIA distributor as soon as possible. The packing list must clearly state which model was used for replacement.

- The "Instructions for Use" booklet (warranty), and proof of purchase must accompany all products returned for consideration.
- No credits will be issued.
- The authorized HEAD/TYROLIA distributor reserves the right to deny replacement to the retailer if the alleged problem is not verified or if products are returned without the "Instructions for Use" booklet and proof of purchase.
- Replacement bindings are covered by the warranty stated above.
- Any bindings returned to the authorized HEAD/TYROLIA distributor due to inappropriate release values (i.e. values which fall outside the "In-Use" tolerance range on the current HEAD/TYROLIA Adjustment Chart) must be accompanied by a completed System Performance Report. The report form is printed in this manual; no warranty action will be taken on release value related claims unless this report accompanies the returned bindings.

Distributor addresses:

### HEAD USA

Shore Pointe, 1 Selleck St.  
Norwalk, CT 06855

USA

Phone: 800-874-3235

203-855-8666

Fax: 203-855-5719

[www.tyrolia.com](http://www.tyrolia.com)

### HEAD TYROLIA SPORTS CANADA INC.

P.O. Box 3620, Station Main  
Guelph, Ontario N1H 7H1

Canada

Phone: 800-265-7257

519-822-1576

Fax: 519-822-2202

[www.tyrolia.com](http://www.tyrolia.com)



# RISK MANAGEMENT

Indemnification, Insurance, and your liabilities.

## INDEMNIFICATION

Indemnification simply means that someone agrees to reimburse you for certain costs. In the ski industry it normally means that provided you fully follow the manufacturer's requirements and install and adjust the binding system correctly, the manufacturer or distributor will provide a defense and pay any judgment which may be entered against you if you are the subject of a claim or suit by a customer who claims to have suffered bodily injury as a result of using certain equipment.

The key here is you must be able to prove that you did your job properly in order to qualify. If you do not, you will not be entitled to a defense or indemnification in the event of a claim.

## YOUR PERSONAL LIABILITY

It's simple: If you make a mistake which causes harm to another, you can be held liable for it.

Be very careful not to make verbal warranties that extend beyond those made by HEAD/TYROLIA. Read the manufacturer's literature and warranties carefully. If a feature or benefit is not mentioned there, don't mention it to the customer.

## SHOP LIABILITY INSURANCE

No indemnification program is a substitute for liability insurance.

Common sense dictates that you should have an insurance policy that covers your shop and employees for commercial general liability and completed operations. Check with your insurance broker.

## SHOP PROCEDURE TO REDUCE LEGAL EXPOSURE

Risk Management has become a very important area in virtually every industry. In today's world it is more important than ever to do as much as possible to recognize how and where we might be exposing ourselves to a potentially serious problem.

HEAD/TYROLIA has been the leader in molding valuable risk management concepts into a program that virtually the entire ski industry follows today. HEAD/TYROLIA has defined proper shop practices and how shop personnel and customers need to interact in order to maximize skiing enjoyment while lowering the risks of liability.

If these procedures are followed properly, both the skier and the industry are well served. In the event of a mishap, the programs documentation and record keeping system will provide strong evidence of work performed.

## YOUR OBLIGATIONS UNDER THE HEAD/TYROLIA RETAILER INDEMNITY PROGRAM

Selecting equipment for your customer.

- Make sure the products are suitable for the skiers height, weight, ability, shoe size and level of ability.
- Always make sure your recommendations are consistent with the manufacturer's.

## BINDINGS SELECTION

Generally, the idea that top of the line products offer the greatest margins for safety as well as performance and durability is correct - provided the skier fits the weight range of the product.

Combine this knowledge with our weight and ability recommendations for the skier when selecting a binding. Avoid selling a product with the idea that the customer will grow into it. If a product is not suitable for their current requirements make another choice.

Avoid the temptation to do the customer a favor by re-writing the rules. More often than not, all you will do is cause problems.

At the time of delivery to the customer, the bindings must be accompanied by all the informational materials supplied by the manufacturer, i. e., pamphlets, forms, etc.

The product must be fully demonstrated to either the intended user or their parent or legal guardian if the child is a minor.

This includes instructions on inspecting the low friction surfaces, cleaning the boot sole, entry of the binding, re-entry after releasing on the hill and exiting the system.

You must also explain what care and maintenance the skier is responsible for, as well as when to return the equipment to your shop for a thorough function check. Routine maintenance is the most cost effective thing a skiers can do to protect their well being.

## BOOT SELECTION

Make sure the customer's boot choice is consistent with their level of skiing and that the boots meet all current DIN or ISO standards.

## SKI SELECTION

Take care to ensure that the skier's intended use of the chosen equipment is consistent with the manufacturer's recommendation for the skier's weight and level of skiing. This is another area where regular maintenance is critical. It is only logical that skis which help keep your customer upright reduce their overall chance of injury.

## RACING (X) BINDINGS

Certain binding models are produced by HEAD/TYROLIA each year for the exclusive use of qualified competitors under the supervision of HEAD/TYROLIA Technical Specialists. These bindings are not covered by either the HEAD/TYROLIA Warranty or any Dealer Indemnity Program. We recommend you decline to service them, and warn against their use.

In a similar vein some skiers may wish to use retention settings which are excessive. DIN settings over 10 do not satisfy current industry standards and should not be used. Adjustments exceeding this range are made on one's own risk.

## COMPLETING THE WORK ORDER WITH THE CUSTOMER

It is critical that certain basic information be included on all shop work orders. While we do not require it, the easiest way to make sure the form you use fits HEAD/TYROLIA's requirements is to use ours.

Once the customer has selected equipment or described the repair or service to be performed, the technician must ask the customer to complete a portion of the Work Order Form which includes their Name, Address, Phone number, Weight, Height, Age, Sex, and Skiing ability.

There are few things more embarrassing than having a customer come in to pick up a pair of skis that could not be serviced due to an improperly filled out form, or an unforeseen technical problem.



The best way to avoid this is to have a HEAD/TYROLIA Certified technician thoroughly inspect all incoming work, and check the paperwork. The skier must then sign indicating that they have read, understood, and agreed to the terms of your Rental/Repair agreement (this agreement must comply with HEAD/TYROLIA Dealer Indemnity Program requirements).

It is also important that the customer be informed that they will be expected to verify in writing that the indicator settings agree with what is written on the form, and that they have been instructed in the use and maintenance of their equipment, and fully understand it.

This procedure must be completed before the transaction is consummated. Remember, the customer has the option of going to another store if the terms of the contract are not acceptable to them, and under no circumstances should the transaction go any further without their signature. The end user, or their agent, must sign the incoming work order.

## SHOP PROCEDURES SUMMARY

For in depth details, see the "Binding Installation" section of this manual.

- Follow HEAD/TYROLIA procedures for inspection, mounting, adjustment and maintenance as appropriate.
- Confirm that toe and heel indicator values match those specified on the actual HEAD/ TYROLIA Adjustment Chart.
- Using a calibrated testing device, according to the manufacturer's instructions for use, "exercise" the binding by releasing it at least once in each direction (clockwise and counter-clockwise at the toe, vertically at the heel). Then measures Twist and Forward Lean Torque Values. The middle quantitative value of 3 releases in each direction should be used as the test result.
- Compare Twist and Forward Lean test, results with the System Inspection Ranges on the actual HEAD/TYROLIA Adjustment Chart.
- After the equipment is adjusted to the skier's needs according to the manufacturer's standards, the certified technician signs the form indicating that the work has been completed according to the manufacturer's specifications.
- With testing complete, the HEAD/TYROLIA Certified Technician must complete and sign the workshop ticket. Be sure the Final Indicator Settings are correctly shown there. The workshop ticket should simply reflect that the system has "passed all tests" or that "all manufacturer's procedures have been completed".

## PROCEDURES FOR RETAIL CUSTOMER PICK-UP

When the Retail Customer or his representative comes in to pick-up the equipment, the store employee has a fantastic opportunity to improve the skier's safety and enjoyment, while minimizing the risk of a lawsuit later on. All that's involved is properly informing the skier about the realities of skiing and ski equipment.

- Explain the function and operation of the binding, including a review of the manufacturer's pamphlet.
- Explain the settings that show in the release setting windows and how they were derived by referring to the manufacturer's release adjustment charts.
- Explain how much proper maintenance of the entire system (boots, bindings and skis) can improve their enjoyment and margins for safety. Also make it clear that skiing, like any sport, has its risks, and equipment can not eliminate them.

- Have the customer sign the form again indicating that they have been instructed on the use of the equipment and that they verified that the visual release indicators on the bindings correspond to the manufacturer's recommended settings shown on the work order ticket.

## ARCHIVING RECORD

Should you become one of the few that must defend against a law suit you will soon find out that the very best defense is made of paper. For this reason we recommend that you start out each ski season with a huge, brand new, manila envelope. Over the course of the season you should fill it with the following items:

- Collect a copy of the technical manual for each and every binding, boot and ski on the market. Be especially diligent with those you carry or work on regularly.
- Copies of the manufacturer's customer instruction booklets.
- Technician employment applications. Make sure they have the address of someone who will always know where they can be found, and is likely to stay put - Moms are good. This can be invaluable if you need the technician as a witness.
- A listing of all technician certifications and their dates. Keep all certification records as well.
- Copies of any pertinent wall charts, customer information posters etc.
- A copy of your shop procedures, including training materials, rental and repair shop practices, and binding setting charts.
- Copies of rental fleet test data.

This type of supporting documentation can be tremendously useful for your lawyer.

## STORAGE OF FORMS

All forms containing the customer's signature must be kept for a minimum of five years or the term of the statute of limitations in the state where the injury occurs, or your state, whichever is longer. As a practical matter you have no idea where or when your customer may sustain an injury on this equipment.

Naturally, should an injury occur to either an adult or a child, keep the original form in a safe place until the case is completely resolved.

Risk Management is really just common sense. Do your job well, have integrity, keep your customers well informed, and keep proper records. Follow these simple rules and you will have very few problems.

# USE OF NON-RECOMMENDED SETTINGS

## SKIERS REQUESTING SETTINGS NOT RECOMMENDED BY HEAD/TYROLIA

The 2007/08 HEAD/TYROLIA Release/Retention Adjustment Table is the only adjustment chart recommended for use by HEAD/TYROLIA dealers during the 2007/08 season.

Some skiers may request settings different from those in the HEAD/TYROLIA Release/Retention Adjustment Table. Most of these concerns can be addressed by following the procedures for reclassifying skier type and for troubleshooting which follow the instructions for using the HEAD/TYROLIA Release/Retention Adjustment Table.

HEAD/TYROLIA and the ISO/ASTM standards organizations do not recommend the use of release/retention settings outside of these tolerances, but skiers occasionally may request such settings. HEAD/TYROLIA recognizes a skier's right to choose other settings, but if the skier requests settings outside of those derived from the normal procedures for re-classifying skier type and for troubleshooting, the shop may either:

1. Adjust the system to the setting derived from HEAD/TYROLIA Release/Retention Adjustment Table and instruct the skier on how to change the setting (if this is done, make a note to this effect on the workshop or rental form), or
2. Adjust the system to the skier's individual request, but only if the technician notes on the workshop or rental form the reason the higher or lower setting was requested. Do not in any case adjust the system to a release/retention value higher than the maximum acceptable setting at the bottom of the HEAD/TYROLIA Release/Retention Adjustment Table. The customer must verify the request for the higher or lower settings by signing and dating the workshop or rental form by the reason noted next to the setting request. The skier must also read and sign a warning, release and indemnity agreement identical to the one printed on this page. In such cases, the system will only be indemnified if all other conditions of indemnification are met and the signed warning, release and indemnity agreement are attached to the completed workshop or rental form.

### Warning, Release and Indemnity Agreement

I, \_\_\_\_\_, hereby acknowledge that I have been advised by the \_\_\_\_\_ rental shop, sales department, etc.) that settings which I have requested for my

bindings (Model \_\_\_\_\_) is not the setting recommended by the manufacturer of the bindings for a skier of my height, weight, age and skier type. I understand and acknowledge that there may be an increased risk of injury or death to me as a result of my own personal preference for these binding settings.

To the fullest extent allowed by law, I hereby waive and release all claims arising from the use of the bindings and release from all liability the shop, the distributor and the manufacturer, their agents and employees, and I further agree to indemnify them from any and all liability or harm or damage of any kind whatsoever which may result from the use of these bindings by myself or anyone I allow to use the bindings.

I, the undersigned, have read and understand this liability release agreement, and agree that it is binding upon me, my heirs, guardians, administrators, assigns, and legal representatives. If any part of this agreement is held to be invalid or unenforceable, the remainder shall be given full force and effect.

\_\_\_\_\_  
Skier's Signature  
(or that of the skier's parent or guardian)

\_\_\_\_\_  
Shop Manager's Signature



## POST ACCIDENT INSPECTION REPORT

Date of Accident \_\_\_\_\_

Workshop Ticket # \_\_\_\_\_

Skier Name \_\_\_\_\_

Skier Phone \_\_\_\_\_

Address \_\_\_\_\_

Witness Name \_\_\_\_\_

City, State Zip \_\_\_\_\_

Witness Phone \_\_\_\_\_

Skier's Description of Accident and Injury \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(Use Back For Additional Comments)

### Description of System

Rented Purchased

Ski Brand \_\_\_\_\_ Model \_\_\_\_\_ Size \_\_\_\_\_

Serial # \_\_\_\_\_ Inv. # \_\_\_\_\_

Boot Brand \_\_\_\_\_ Model \_\_\_\_\_ Size \_\_\_\_\_

Binding Brand \_\_\_\_\_ Model \_\_\_\_\_ Size \_\_\_\_\_

### Condition of System

Are the boot soles within industry standards? Yes \_\_\_\_\_ No \_\_\_\_\_

Are all buckles, boot adjustments functioning correctly? Yes \_\_\_\_\_ No \_\_\_\_\_

Are the A.F.D.'s Intact? Yes \_\_\_\_\_ No \_\_\_\_\_

What are the Visual Indicator Settings? Toe \_\_\_\_\_ Heel \_\_\_\_\_

Is the Forward Pressure set correctly? Yes \_\_\_\_\_ No \_\_\_\_\_

Is the Toe Height set correctly? Yes \_\_\_\_\_ No \_\_\_\_\_ NA \_\_\_\_\_

Do the brakes function smoothly? Yes \_\_\_\_\_ No \_\_\_\_\_

Is the ski bent delaminated or damaged? Yes \_\_\_\_\_ No \_\_\_\_\_

Describe: \_\_\_\_\_

Was the equipment returned to service post-accident? Yes \_\_\_\_\_ No \_\_\_\_\_

### Mechanical System Testing

Testing Device \_\_\_\_\_

Last Calibration date / /

Clockwise Ctr Clockwise

Clockwise

Ctr Clockwise

Toe L \_\_\_\_\_

R \_\_\_\_\_

Heel L \_\_\_\_\_

R \_\_\_\_\_

### Background

Shop Name \_\_\_\_\_

Inspected By \_\_\_\_\_

Inspector Signature \_\_\_\_\_

Checked By \_\_\_\_\_

Checker Signature \_\_\_\_\_



## SYSTEM PERFORMANCE REPORT

Shop Name \_\_\_\_\_  
Phone \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_  
State, Zip \_\_\_\_\_

Date Report Completed                      /   /                      Workshop Ticket Date                      /   /  
Workshop Ticket #                      \_\_\_\_\_  
Inspector's Name                      \_\_\_\_\_                      Position                      \_\_\_\_\_

### A. Description of System

Rented      Purchased

Ski Brand	_____	Model	_____	Size	_____	_____	_____
		Serial #	_____	Inv. #	_____		
Boot Brand	_____	Model	_____	Size	_____	_____	_____
Binding Brand	_____	Model	_____	Size	_____	_____	_____

### B. System Performance

Boot Sole Length                      mm                      Binding Indicator      Toe      L              R  
Setting

Condition                      \_\_\_\_\_                      Heel      L              R

Testing Device                      \_\_\_\_\_                      Last Calibration date                      /   /

Chart date                      /   /

"In Use" Torque Tolerance:                      Forward Lean                      Twist                      \_\_\_\_\_

### Measured Release Values:

	Clockwise	Ctr Clockwise		Clockwise	Ctr Clockwise
Toe	L                      _____	_____		R                      _____	_____
Heel		L                      _____	R                      _____		

## USED BINDING CHECKLIST

1. Customer concerns
2. Service bulletins - maintenance
3. Suitability
4. Availability - parts/tools/technical info
5. Boot/binding compatibility
6. Compatibility of under-binding options
7. Defects:
  - a) parts - cracked/corroded/missing
  - b) boot contact area - worn/damaged
  - c) boot contact area - contaminated
  - d) screws - missing/protruding
  - e) brake/rollers/AFD - malfunctioning
  - f) positioning/alignment - incorrect
8. Binding to boot adjustments
9. INITIAL ASSESSMENT
10. Tests:
  - a) screw tightness
  - b) antishock travel
  - c) compatibility (if indicated)
  - d) release indicator verification
  - e) accelerated life cycle (with permission)
11. FINAL ASSESSMENT

## USED SKI CHECKLIST

1. Customer concerns
2. Service bulletins - tuning requirements
3. Suitability
4. Defects:
  - a) delaminated
  - b) edge pulled out
  - c) cracked side wall
  - d) warped, bent, twisted
  - e) damaged tip/tail protector
  - f) lost camber
5. INITIAL ASSESSMENT
6. Base/edge condition/thickness
7. Base/edge profile
8. FINAL ASSESSMENT

## USED BOOT CHECKLIST

1. Customer concerns
2. Service bulletins - fitting requirements
3. Suitability
4. ISO sole dimensions - Adult/Child
5. Sole hardness/material
6. Defects:
  - a) sole - warped
  - b) contact area - damaged/worn
  - c) contact area - contaminated
  - d) shell/liner/buckle - damaged
7. Type/position of foot bed/fitting aids
8. INITIAL ASSESSMENT
9. Fit:
  - a) foot anomalies
  - b) foot/boot size comparison
  - c) foot in boot evaluation
10. Performance adjustments
11. FINAL ASSESSMENT

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For more information log on to [check-itout.com](http://check-itout.com)



# ONLINE DEALER SUPPORT

## www.tyrolia.com

### DEALER LOG-IN

#### SIMPLE LOG-IN FOR USING THE DEALER AREA

Select your country (e.g. USA) in the Tool Box for Dealers and then enter this in lower case characters as a password e.g. usa). If the required country is not available on the list, select „others“.

- ENTER [www.tyrolia.com](http://www.tyrolia.com)
- SELECT YOUR COUNTRY (USA)
- ENTER THE PASSWORD (usa)



### TECHNICAL INFO

#### SIMPLE SEARCHING FOR SPARE PARTS

Under the item „Searching for spare parts“ you can locate all the replacement parts from last four years or download the technical manual ready to print out.

- SELECT TECHNICAL INFO
- FIND ALL SPARE PARTS
- DOWNLOAD TECHNICAL MANUALS



### RENTAL SYSTEMS

#### RENTAL LINE ONLINE

The entire TYROLIA Rental Line is available online for the first time. All the TYROLIA rental products are listed. Here you can download extensive information about the proven technologies and philosophy of the rental business.

- SELECT RENTAL SYSTEMS
- FIND ALL RENTAL PRODUCTS
- DOWNLOAD EXTENSIVE INFO





## CLASSIFY YOURSELF

### DETERMINING YOUR SKIER TYPE IS YOUR RESPONSIBILITY!

Your Skier Type, height, weight, age and boot sole length are used by the shop technician to determine the release/retention settings for your bindings. Consult these descriptions to select your classification. Be sure to provide accurate information. Errors increase your risk of injury.



**TYPE I**

Cautious skiing on smooth slopes of gentle to moderate pitch.

Skiers not classified as Types I or III.

**TYPE II**



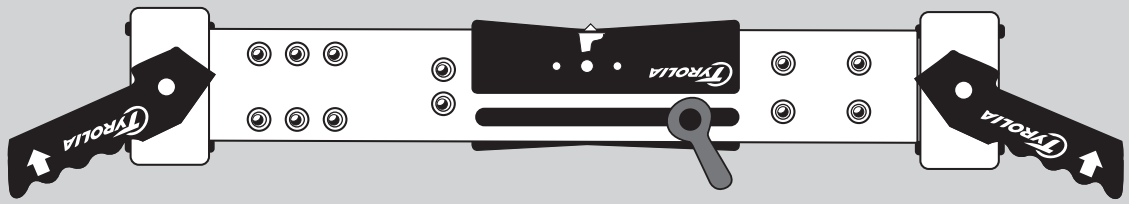
**TYPE III**

Fast skiing on slopes of moderate to steep pitch.

Skiers who designate themselves as Type I receive lower than average release/retention settings. This corresponds to an increased risk of inadvertent binding release in order to gain releasability in a fall. This type also applies to entry-level skiers uncertain of their classification.

Skiers who designate themselves as Type II receive average release/retention settings appropriate for most recreational skiing.

Skiers who designate themselves as Type III receive higher than average release/retention settings. This corresponds to decreased releasability in a fall in order to gain a decreased risk of inadvertent binding release. Type III settings should not be used by skiers of less than 22 kg/48 lbs.

	<p><b>92 W</b> Art.Nr.:162 760</p>	<p><b>HEAD</b> FREEFLEX PRO 18 (X), FREEFLEX PLUS 17, FREEFLEX PLUS 14, FREEFLEX PLUS 11, LD 12 CYBER, LD 12, MOJO 20 (X), MOJO 15, MOJO 11, MOJO 7.5, SL 110 ABS, SL 100, GOLD THANG 12 LD, SL 75 ABS, SL 75, SL 70 AC, CARVE PLATE 13 SLR, CARVE PLATE 9 SLR, HEAD PLATE 14</p> <p><b>TYROLIA</b> FREEFLEX PRO 18 (X), FREEFLEX PLUS 17, FREEFLEX PLUS 15, FREEFLEX PLUS 11, LD 12 CYBER, LD 12, SL 110 CARVE ABS, SL 100, SL 75, SL 70 AC, CARVE PLATE 13 SLR, CARVE PLATE 9 SLR, JUNIOR PLATE 11</p>
	<p><b>RAILFLEX</b> Art.Nr.:162 756</p>	<p><b>HEAD</b> RAILFLEX BASE 07, RAILFLEX BASE 06, RAILFLEX LITE BASE</p> <p><b>TYROLIA</b> SUPER RAILFLEX BASE II, RAILFLEX BASE II, RAILFLEX LITE BASE</p>
	<p><b>94 W</b> Art.Nr.:162 761</p>	<p><b>HEAD</b> SL 45</p> <p><b>TYROLIA</b> SL 45</p>
	<p><b>SP 2003 W</b> Art.Nr.:162 763</p>	<p><b>TYROLIA</b> SP 130 ABS DEMO AERO, SP 120 ABS, SP 100 ABS, SP 90 ABS, SP 75 ABS, SP 45</p>
	<p><b>SR 2003 W</b> Art.Nr.:162 762</p>	<p><b>TYROLIA</b> SR 100, SR 70, SR 45</p>

# HEAD

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