# TECHNICAL MANUAL MANUAL ALPINE



# 2013-2014

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# **SALOMON WARRANTY POLICY**

Thank you for buying this SALOMON product. They are built to last.

SALOMON distributes its products through its worldwide network of authorized SALOMON distributors and retailers and on the SALOMON Online Store at the URL:

www.salomon.com, www.salomonrunning.com, www.salomonfreeski.com.

(SALOMON Online Store)

You will find herein/below all SALOMON warranty policy details offered by SALOMON and the SALOMON authorized retailers.

# I. WARRANTY DEFINITION

# THIS WARRANTY POLICY IS VALID AS OF NOVEMBER 1ST 2010.

SALOMON provides this warranty to buyers who purchased the SALOMON product (Product) to SALOMON. SALOMON Products are guaranteed against all manufacturing or material defects (Defect) for the Warranty Period as defined below.

SALOMON Products are compliant with their description and specifications; it is your responsibility to ensure that the Products you purchase are compatible for the intended use.

This warranty is valid and enforceable only in the country where the Product was purchased by the end user, provided that SALOMON has intended the Product for sale in that country.

In European Economic Area countries, this warranty is also enforceable in any country within European Economic Area where SALOMON has an authorized importer (subsidiary or distributor).

Please report to the SALOMON authorized retailers list.

Depending on the country, particular and variable warranties may apply in relation to applicable legislation. Nothing in this warranty policy can exclude or limit these statutory provisions.

# **WARRANTY PERIOD**

The Warranty Period starts at the date of retail purchase of the Product by the original end-user purchaser. The product may consist of several different parts and different parts may be covered by different warranties periods (please report to "Warranty Period").

The different Warranties Periods are:

- a. Three (3) years for winter sports trousers and jackets
- b. Two (2) years for other products\*

\*Warranty period is two (2) years for alpine ski bindings sold during Fall/Winter 2011/2012 and five (5) years for alpine ski bindings sold before

Special warranty for base plate and high back of certain snowboard bindings

SALOMON provides a lifetime warranty applicable for base plate and high back of the limited following snowboard bindings:

- Caliber
- Chief
- Relay (Pro, Series, Ring)
- Absolut (Pure, Premium)
- Cypher
- Arcade
- Patriot
- Stella
- Celeste

To the extent permitted by national laws, the Warranty Period will not be extended, renewed or otherwise affected due to subsequent resale, repair or replacement of the Product.

However, part(s) repaired or replacement product(s) during the Warranty Period will be warranted for the reminder of the original Warranty Period provided replacement or repair has been performed by SALOMON or an authorized SALOMON retailer.

Depending on the country, particular and variable Warranties Periods may apply in relation to applicable legislation.

Nothing in this warranty policy can exclude or limit these statutory provisions.

# II. THE WARRANTY DOES NOT COVER:

- Damages due to transportation
- Damages due to storage
- Damages due to improper use of the products and poor maintenance
- Damages due to non-observance of the instructions or restrictions for use of the products as defined in the products owner manual
- Damages due to the products normal wear and tear
- Damages due to non-observance of the instructions for maintenance as defined in the products owner manual
- Damages due to modification of the products
- Damages due to any impact caused by sharp items, due to torsion, compression, a fall, an abnormal impact or other actions that cannot be under SALOMON's reasonable control.

The present warranty is not enforceable if:

- 1. The Product is not returned in its original packaging, if it has been modified or repaired by any person or entity other than SALOMON or an authorized SALOMON retailer;
- 2. The Product has been repaired with unauthorized spare parts;
- 3. The Product serial number has been removed, deleted, altered or made illegible.

# **III. WARRANTY ENFORCEMENT**

In case of Defect, SALOMON agrees to accept the claim, replace or repair the Product at no charge for the end-user and return it. This shall be determined in the sole discretion of SALOMON or his authorized retailer, unless this is impossible or disproportionate.

The remedy will be deemed to be disproportionate by SALOMON if it imposes costs on SALOMON which, in comparison with the alternative remedy, are unreasonable, taking into account:

- The value the goods would have if there were no Defect.
- The significance of the Defect,
- Whether the alternative remedy could be completed without significant inconvenience to the consumer.

SALOMON agrees that all repair or replacement of the Product will occur within a reasonable period and without any major inconvenience for the consumer, taking account of the good's kind and its fitness for purpose.

The consumer is not entitled to have the contract rescinded if the Defect is minor.

For all warranty claims, please produce the Product and the proof of purchase to the nearest authorized SALOMON retailer or in case you purchased the Product on SALOMON Online Store, please contact Customer Service at 0800 90 44 03.

For all warranty claims, please report to the FAQ/ RETURN POLICY available on **www.salomon.com** 

NOTES	
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	<u>.</u>

# Ski



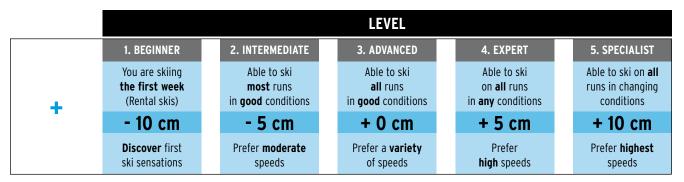
# SKI / SALOMON SKI LENGTH GUIDE

# **ADULT**

# FOR THE SALOMON SKIS, FIND THE CORRESPONDING CENTIMETRE LENGTH FOR YOUR WEIGHT

Add to that number any additional length from the boxes below according to you r ability, aggressiveness, the snow conditions you ski most of the time and the kind of skis you want to choose.





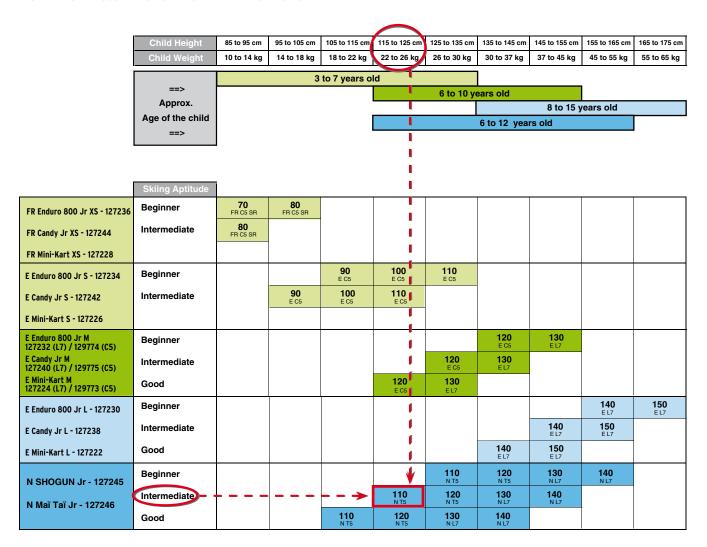
	TERRAIN							
+	Most of the time on <b>groomed piste</b> or on <b>hard snow</b> conditions < 60%	Most of the time <b>off piste</b> or on <b>soft snow</b> conditions > 60%						
	+ 0 cm	+ 5 cm						

	TARGET / KIND OF SKI							
+	3V POWERLINE 24 HOURS 24 DAYTONA 24 HOURS POWERLINE S5 24 HOURS POWERLINE S3 INTENSE BLACK PURE WHITE	2V RACE POWERLINE MUSTANG / X-KART 24 HOURS POWERLINE LM 24 HOURS POWERLINE S1 24 GT PRO / 24 SPORT ENDURO ROCKER / ROCKER² / CZAR / SHOGUN / LORD / KNIGHT EL DICTATOR / SENTINEL / TWENTY TWELVE PRO PIPE / SUSPECT / THREAT GEISHA / LADY / GALAXY / VAMP ORIGINS BAMBOO / ORIGINS LAVA ORIGINS LIME ORIGINS LAGOON						
	- 1 cm	+ 4 cm						

	TOTAL
=	This total centimetre length is a <b>guide</b> , your preferred length will be the <b>ski closest</b> to the recommended total.

# **JUNIOR**

# SKI LENGTH ACCORDING TO WEIGHT AND HEIGHT OF CHILDREN\*



Example for shogun jr = A 6 year old child weighting 25 kg (and measuring 120 cm), with intermediate skiing abilities, must choose a 110 cm ski with a "T5" binding

# RECOMMENDATIONS OF USE OF THE SKIS ACCORDING TO THE MASS OF THE SKIER

To guarantee the sufficient parameters of safety (i.e. the resistance of the screws to wrench), skiers must use skis, according to groups 1 to 4 below, corresponding with their weight\*\*.

Group of ski	Mass of skier
1	> 65 kg
1, 2	≤ 65 kg
1, 2, 3	≤ 45 kg
(1, 2) 3, 4	25 kg

<sup>\*\*</sup> extract from NF ISO 8364 june 2007

<sup>\*</sup> If weight is over 65 kg (142 lbs), SALOMON strongly recommend to use an ADULT ski.

# MAINTENANCE REPAIRS

# **SKI MAINTENANCE**

Good ski maintenance is just as important for the recreational skier as for the racer.

A fine-tuned ski lasts longer.

A well-prepared ski turns better, grips the snow better and glides better on all types of snow.

The ski tune-up involves three steps:

# 1. Daily check-up

- at the end of everyday of skiing.

#### 2. Machine tuning

- for quick work.

# 3. Complete hand tuning

- for skier's specific needs.

# **CHECK-UP**

- Visually check to see if any rust has developed on the edges.
- Remove any traces with fine, 220-230 grit sandpaper.
- If necessary, sharpen and polish edges using sandpaper wrapped around a file.
- Clean the base and wax with Swix wax.

# **MACHINE TUNING**

# SKI CHECK-UP

- Visually check to determine what needs to be tuned.
- Remove major deep scratches on edges with whetstone.
- Remove any traces of wax or grease.

# **FILL IN ANY HOLES IN THE BASE**

Depending on the conditions of the base and materials available:

- a) Grind entire base surface (photo 1).
- b) Fill-in scratches with base repair material.
- c) Repair any large damaged areas with base patch/die.



# STONE GRINDING

For Prolink skis, install the Binding-Bridge kit according to the 'Maintenance specifics' paragraph.

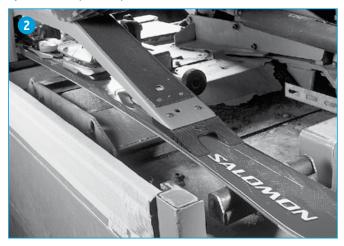
# A) SURFACE SMOOTHING

- Place the skis on a flat surface.
- Eliminate any excess polyethylene on the base with a hand base plane to decrease the risks of contaminating the stone.

#### **B) SEMI FINISHING**

- Stone grind until the base becomes flat and glossy.
- Avoid overheating and use of a dirty stone (lengthwise streaks on base are from stone contaminant)
- Dress the stone regularly to keep it in good condition (when using a belt grinding machine: use 80 grit belt).

# C) FINISHING (PHOTO 2)



- Stone grind to obtain a fine structure (when using a belt grinding machine: use 150 grit belt).
- Do not use a dirty stone which creates fluff/hair.

# D) BEVELED/RECESSED FINISHING

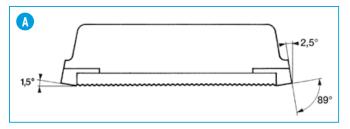
For skis with beveled/recessed finishing, we recommend a straight, fine stoneground structured base.

**Note:** always make the last run in this direction: Tip-Tail. Concerning the machine parameters, please consult the machine manufacturer.

# **EDGE FINISHING**

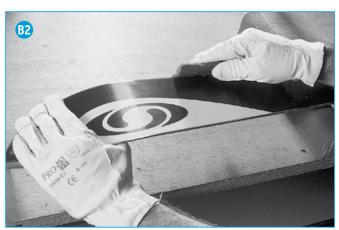
We recommend grinding the edges with a cup grinding disc see fig. A.

- Check the angle adjustment beforehand.
- Make sure the stones are well lubricated.
- Make sure the edges are not burnt (brown color).
- Check the tuning lengths.



- Smooth the edges by hand with a soft stone (photo B1) or Scotch Brite® (photo B2)
- Make sure all burrs are removed and smooth down again, if necessary.



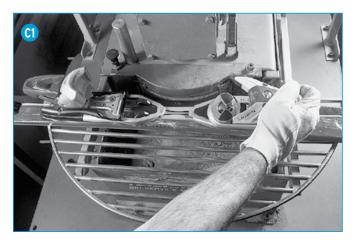


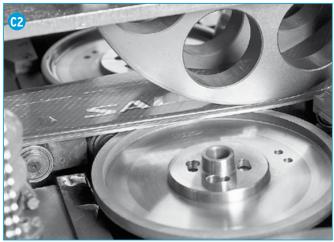
# For non equiped retailers they can do a classic tuning.

Lateral finish (photo C1):

- Lateral finishing with lubricated 220 belt (or use the smallest grit possible).
- Pass over the edges 1-2 times depending on the condition of the edges.
- A double sided sharpener will maintain the ski's proper side cut.
- For a performance preparation, polish the base edge with a polishing stone or whetstone to eliminate any file marks on the edges.
- Remove burrs and polish edges with a lubricated Scotch Brite® belt machine at a slow speed (photo C3).
- Be careful to lubricate sufficiently to avoid burning the base.
- Carefully remove all burrs with a soft stone.
- Quickly wipe the ski to avoid staining from the dried lubricant.

A well-sharpened ski is always sharper underfoot than at the extremities of the ski.







# WAXING, SCRAPING AND BRUSHING

- Wax remover
- Iron with thermostat
- Wax applicator
- Plastic scraper
- Brush

# A) WAXING (photo D1)



- It's best to use melted wax.
- Clean the base thoroughly.
- Make sure the iron is set at the appropriate temperature so that only the wax is melted. (Temperature 110 °C +/- 5 °C or 230 °F +/- 10 °F).

Excess heat (above 120 °C or 248 °F) can be harmful to both wax and ski, and can even cause permanent loss of glide qualities in the base.

- Choose a wax according to the wax manufacturer's recommendations.
- Melt the selected wax over the entire length of the base, and let the wax cool to room temperature.

#### B) SCRAPING (photo D2)



- Remove the excess wax with a plastic scraper from tip to tail to leave only a very thin layer.
- Remove wax from the base groove and ski edges as well.

# C) BRUSHING (photo D3)



- Brush the base with a nylon brush (or other type depending on the structure desired) working from tip to tail.
- A rotating brush removes the structure of the base for good glide. Strap the skis together. Position the straps at the base contact points.

Note: The skis can be stored ready-waxed (unscraped) for an extended period of time (e.g. between ski seasons).

# **HAND TUNING**

#### Tools:

- Square
- 20 cm (8 inch) file
- Whetstone
- Soft stone
- Scrapers
- Brushes
- Scotchbrite®
- Sandpaper (220-320 grit)
- Central holding vise
- Swix wax

A true bar is the basic tool for checking and assessing:

- ski base flatness,
- that the edge is slightly recessed from the base,
- -the extent of base scratches and appropriate repair. The edge angle checking tool is used to verify that the edge has an angle of 90°.

# SKI CHECK-UP

- Check the base and edges of your skis with a true bar.
- If repairs are necessary, see instructions below.

# SMOOTHING THE BASE AND EDGES

Classic finish: If damage is only minor, use a file to tune; otherwise the ski must be tuned on a machine.

Beveled/Recessed finish: the recommended bevel is between 1° and 1.5°.

# EDGE SHARPENING

- Sharpen base edges.
- Sharpen side edges.

On classic finish: make sure the edges are at 90°.

On Beveled/Recessed finish: make sure that the beveled and recessed edge angle is between 1° and 1.5°

- Round off the tip and tail slightly.
- Remove any burrs with soft stone or Scotchbrite®.

# POLISHING THE EDGES

Polish the edges with a whetstone, starting first on the base and then the

# DE-TUNING THE EDGE ANGLE AT THE EXTREMITIES

# WAXING, SCRAPING AND BRUSHING

Follow the same instructions as in machine tuning.

Important: After all finishing operations (by hand or machine) it is essential to remove any burrs from edges and to polish the edges to ensure good ski performance.

# **CLEANING THE SKIS**

Pressurized cleaners are prohibited, as well as the following solvents:

- Acetone
- > 95° alcohol

(due to risk of damaging the cosmetics of the top surface of the ski).

# MAINTENANCE SPECIFICS

Tuning skis with prolink on automatically programmable machines and machines with a lead:

To be able to tune skis with the Y and V prolink, we have developed a specific tuning kit in cooperation with the Wintersteiger company.

This new Prolink adapter can be mounted on the adjustable Wintersteiger bridge (ref. 2000: 7217-0111-V01) and is available at Wintersteiger under the reference 7217-0111- V05.

# REPAIRING THE SURFACE OF THE SKI

<u>There are two methods for repairing the ski surface:</u>

- 1) "One colored" paste + Araldite®
- 2) "Multi colored" Araldite® + white + coloring

#### Materials needed:

- Araldite® 2011,
- Araldite® gun 50 ml,
- Araldite® coloring paste for smooth color (DW 0131 White, DW 0133 Red, DW 0137 Black, DW 0132 Yellow, DW 0134 Green, DW 0135 Blue).
- White paste for undercoating for decoration (DW 0131 White),
- Felt pen to color the design, type 3 points, permanent (Ref: Pantone 87828 - color number).

# **Accessories:**

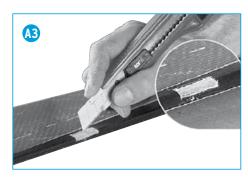
- Cutter,
- Adhesive tape,
- Towel,
- Sand paper, Grain 600.

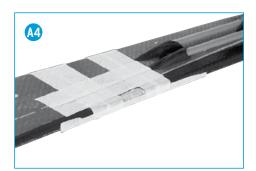
# Repair process:

- With a cutter, outline the area to be repaired, then cut the top surface (photo A1).
- 2. Result after cutting the top surface (photo A2).
- **3.** With a cutter, score area to repair (fibers) to improve bonding (photos A3).
- **4.** To protect top surface, put adhesive tape around the area to repair (photo A4).
- 5. Prepare Araldite® resin with gun.
- **6.** Which type of repair to choose:
  - a) One-color surface repair
  - b) Multicolored surface repair
- 7. Add a small quantity of coloring paste to the Araldite® resin. Gently mix (in order to avoid bubbles) to obtain a homogeneous mixture. Add a small quantity of coloring paste (White DW 0131) to the Araldite® resin. White paste is used as a primer in order to have the desired colors afterwards. Gently mix (in order to avoid bubbles) to obtain a homogeneous mixture (photo A5).
- 8. Apply thicker than top surface of the ski in the areas to be filled. Wait a few moments to eliminate bubbles if necessary (photo A6).
- Put adhesive tape on the area to avoid running. Let it dry for 12 hours (photo A7).
- 10.After 12 hours of drying, remove the adhesive tape from the mixture. Do not remove the adhesive tape around the area which protects the top surface from scratches. Use the flat side of a cutter to scrape off the excess mixture (photo A8).
- Smooth it down with 600 grain sand paper. Remove the adhesive tape (photo A9).
- 12.Finish sanding gently in order to obtain a smooth surface. Be careful of the ski's decor/cosmetics.

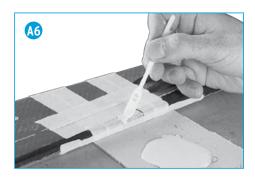






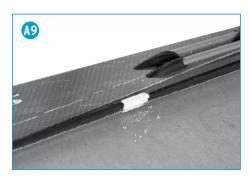






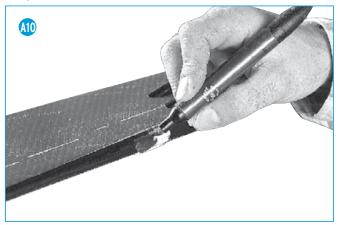






# **HOW TO CREATE A DECORATION**

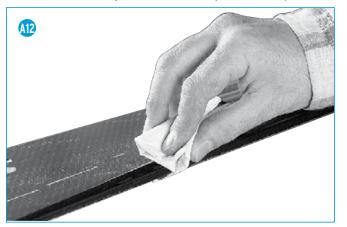
13. For the coloring stage, do not try creating tone on tone to create the exact color of the ski. Trying to reproduce a motif of the ski design already present elsewhere is better and easier. The final layer of Araldite® tends to lighten colors (photo A10).



- **14.** Use the Araldite® gun for a varnish finish which will protect the ski surface from cuts from the edges. A small quantity of Araldite® is sufficient.
- Apply a fine layer of Araldite<sup>®</sup> with a cutter to avoid excessive thickness (photo A11).



16. Using a dust-free cloth, wipe off the excess Araldite® to obtain a smooth, even surface. Let it dry for 30 minutes. The repair is finished (photo A12).



# THE TPP TOP SURFACE

All the adult and Rental models are protected by the TPP (Transparent Polyamide Protection). Regarding the Junior models, they are protected by TP (Transparent Protection).

The transparent tops cover the cosmetics underneath, which guarantees the durability of the cosmetics.

# **BASE REPAIRS**

# > Superficial scratches:

Machine tuning will make the scratch disappear (see the ski maintenance renair)

# > Not very deep scratches or marks to be filled by machine:

- Pour the polyethylene.
- Wait 10 minutes for the material to harden.
- Remove the excess polyethylene with a steel spatula for a flat surface.
- Proceed with machine tuning.

#### > Deep cuts:

- Cut out the damaged area with the base patch die.
- Cut a piece of the base material with the base patch die.
- Glue it into the damaged area.
- Hold it in place with a clamp and press repair (glue the pieces with Loctite® 406 or slow Araldite®).
- Proceed with machine tuning.

# **REPLACING THE TIP PROTECTOR**

# TIP PROTECTOR WITHOUT SCREWS

"Triangle" tip protector (fig. B).

"Hexagonal" tip protector (fig. C).

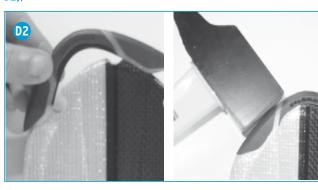




**1.** Check that the tip protector is on the right position (Salomon logo on top foil side (fig. D1).



**2.** Set ut the tip protector on the lateral groove with a rubber hammer (fig. D2).



- 3. Set up the tip protector on the central groove (fig. D3).
- **4.** Finish the mounting on the second lateral groove with a rubber hammer (fig. D4).





# TIP PROTECTOR WITH SCREWS

"Triangle" tip protector (fig. E).

"Hexagonal" tip protector (fig. F).





- 1. Insert the tip protector on the ski.
- 2. Place the 2 screws in the 2 holes face the running base and screw on (1N.m).

# REPLACING EDGES

# **MATERIALS:**

- Standard Salomon edges for all skis (ref. S90190)

# **REPAIR PROCESS:**

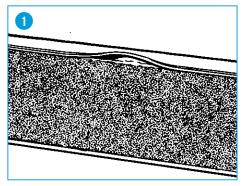
- 1. Verify that the ski can be repaired.
- 2. Remove the binding and clean the ski.
- 3. Check the length of the edge to be replaced (fig. 1).

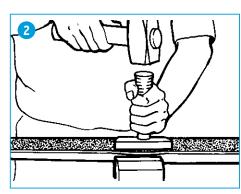
Cut out the base where the edge must be changed (10 mm beyond) with the base patch die or cutter (in this case, make a reproducible cut-out) (fig. 2).

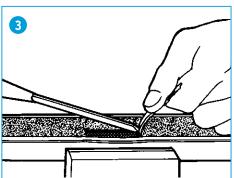
- **4.** Cut the 2 sides of edges between two wings with 45° angle, as illustrated.
- Cut out the edge carefully with cutter or wood chisel, then roughen the area with 80 grit sandpaper (fig. 3).
- **6.** Cut the new edge, trim it and remove the grease.
- **7.** Place the new edge and screw 2 wings near the tip.

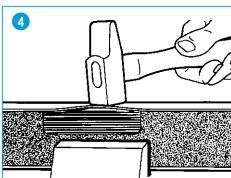
Wedge in place in order to maintain a good profile and keep the edge horizontal (fig. 4)

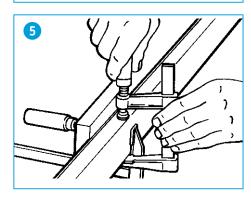
- 8. Apply epoxy to affected area and heat slightly with heat gun, concentrating on each wing.
- **9.** Put plastic over cut out area and insert piece of new base material.
- **10.** Cover the affected area with mold release paper and place ski in heat press (fig. 5).
- 11. When the epoxy has cured, remove the ski from the heat press and remove base patch and plastic film.
- 12. Reapply epoxy to the affected area.
- **13.** Carefully insert piece of base material into cut-out area.
- **14.** Cover affected area with mold release paper and place ski in heat press.
- **15.** When the epoxy has cured, remove the ski from the heat press.
- 16. Grind base and edge locally.
- **17.** Plane patch area to obtain proper geometry with base plane or file.
- **18.** Repair any damage to top layer with a mixture of epoxy and colorant.
- 19. Tune and wax the ski.







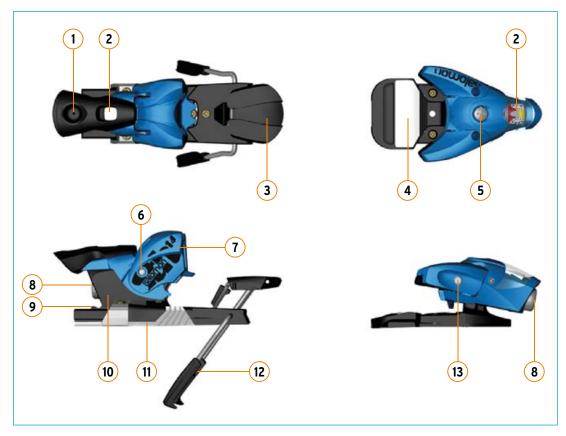




# Binding



# TECHNICAL DESCRIPTION



- 1. Heel lever
- 2. Indicator window
- 3. Brake pad
- 4. AFD plate
- 5. Height adjustment screw
- 6. Heel cup axis
- 7. Heel cup
- 8. Release adjustment screw
- 9. Lenght adjustment
- 10. Heel housing
- 11. Heel plate
- 12. Brake arms
- 13. Wings toe adjustment

# LIST OF TOOLS AND ACCESSORIES THAT ARE NECESSARY IN THE WORKSHOP

- > Technical manuals for Skis and Bindings
- > Spare-parts catalogs
- Release adjustment table (DIN chart)+ skier type
- Jigs (please consult spare-parts catalog for different references)
- > Synchro measuring device ref. 001189
- > Electric drill
- Drill bits (see on spare-parts catalog for different models)
- Adjustment tool (Salomon screwdriver) ref. 000902
- > Power screwdriver with torque release
- > Posidrive® screwdriver 7mm ref. 000862
- > Tap ref. 000816
- > Brace ref. 000817
- Repair kit (2 extractor bits and repair plugs) ref. 000878

- Grease ref. 000905
- > Glue ref. 000811
- 4.5 diameter plastic plugs (different references depending on the color see spare-parts catalog)
- Specific adaptations: (for the references see spare-parts catalog)
   Brakes
- carving (=long arms)
- wide brake

# Plates

For all other parts (such as AFD, housing, brakes, crews...), please consult your spare parts catalog.

# PROPER PROCEDURES

<u>Proper procedures to be used while mounting and adjusting Salomon bindings are the following steps.</u>

- > 1. Mounting bindings.
- > 2. Binding-to-boot adjustments.
- **3.** Release value selection and adjustment.
- > 4. Final checking visual and mechanical inspections.
- > 5. Skier instruction and warning.

**Important:** before drilling the ski, it is important to determine that the boot you are using will be compatible with the binding.

Only boots that conform with ASTM, DIN (German Industrial Norm), or ISO (International Standard Organization) boot sole standards should be used with Salomon bindings.

A boot sole must also be flat and in good condition.

# **MOUNTING**

# **MOUNTING BINDINGS**

- 1. Remove shrink wrap from skis.
- Drill the skis using the appropriate jig and drill bit as shown in the chart opposite. Make sure that the jig is parallel to the ski during the entire drilling process (fig.1).
- **3.** Follow the ski and binding manufacturers' mounting instructions closely.

It is necessary to use Salomon glue or Epoxy.

Operation	All models except:	X-RACE JR, ROCKER <sup>2</sup> Q-MAX JR, Q-LUX JR	JR, SUSPECT JR,		
		ski G3 - G4	ski G1 - G2		
Ø of drill bit	4,1 mm	3,6 mm	4,1 mm		
Tapping	No	No			
Glue (put the glue at the bottom of the hole)	Salomon glue or epoxy	No glue			
Torque	4 Nm	3 Nm For these skis, use a hand screwdriver only to tighten the screws on the bindings.			

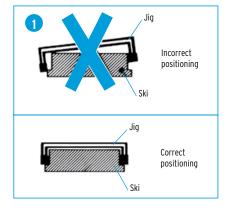
# **SELECTING AND USING THE JIG**

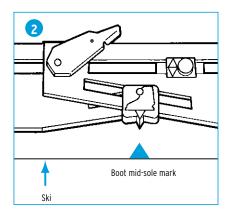
The main function of a jig is to insure that all holes for mounting the binding are drilled in the correct location.

#### See chart to select the proper jig.

- Check that you have everything you need (the jig that corresponds to the binding, the right skis, the right boots).
- 2. Open the locking lever.
- **3.** Open the jig by twisting both handles inward. Place the jig in the right direction on the ski.
- Place the jig on the ski and make sure that the jig remains properly aligned to the ski during the entire drilling operation (fig.1).
  - If the ski has a mid-sole mark, line up the mid-sole indicator on the jig with the midsole mark on the ski (fig.2).
  - If the ski has a tip-of-the-boot mark, line up the tip-of-boot-sole indicator on the jig with the tip-of-boot mark on the ski.
  - If the ski has no visible markings for jig location, consult the ski manufacturer for proper mounting position.
- Once the jig is well-positioned on the ski, it is important to adjust the jig to the correct boot length to make sure the heel piece is in the proper position.
- **6.** Place the boot on the jig in the right direction.
- **7.** Make sure the heel guide fits snugly against the boot heel.
- **8.** Using the lever, lock the jig around the boot so it holds it without squeezing.

Ref	Jigs	Skis Widths	Application
001156	Adult Line Senior	56 mm <-> 99 mm	Senior (Lenght drilling 9,5 mm) STH 16 - 14 - 12 Driver . STH 12 Z 14 - 12 - 11 - 10 L 10 - 9
			(Lenght drilling 8 mm) L 7
001157		80 mm <-> 123 mm	
78406101	Junior	56 mm <-> 99 mm	Junior (Lenght drilling 8 mm) T 5 - C 5
001003	Rental Line Senior and Junior	56 mm <-> 99 mm 80 mm <-> 123 mm	Synchro Center Adult - Synchro Rental Adult (Lenght drilling 9,5 mm)  Z 12 - 10 SC L 9 - 10 SC & SR L 7 SC  (Lenght drilling 8 mm) L 7 SR  Synchro Center Junior - Synchro Rental Junior (Lenght drilling 8 mm) T 5 SC - T 5 SR - C 5 SR
78840301	SMARTRAK	70 mm <-> 116 mm	Senior (Lenght drilling 9,5 mm)
24729001	Junior	56 mm <-> 99 mm	Junior (Lenght drilling 8 mm) TZ 5 Juniortrak
11847301	X bindings	60 mm <-> 86 mm	Senior ( Lenght drilling 9,5 mm) X 20 - 18 - 16 - 12
30863001	Easytrak	70 > 116 mm	Senior (Lenght drilling 9,5 mm)
32670501	Backcountry	56 > 143 mm	Senior (Lenght drilling 9,5 mm)
32981601	STH <sup>2</sup>	56 > 143 mm	Senior (Lenght drilling 9.5 mm)





# **DRILLING**

- **1.** Follow the recommendations of the ski manufacturer for drilling and tapping.
  - When in doubt about the ski's core composition, select a 3.6 mm diameter bit, and drill one hole to see if any metal comes in contact with the bit. If contact is made with metal, re-drill with a 4.1 mm bit.
- Drill through the jig's proper bushings applying moderate downward pressure on the drill. Make sure that the countersink bevel on the drill bit has properly deburred the hole.
- After drilling, turn the ski over and hit the base several times with the palm of your hand to remove any debris from the drilled holes.

# DRILLING JUNIOR SKIS

- Use an 8 mm length drill bit to mount the Junior bindings L 7 - L 7 SR - T 5 - T 5 SC & SR - C 5 -C 5 SR - Easytrak L7 & C5.
- Whenever junior bindings are mounted on adult skis, there is an increased possibility for binding pull-out due to poor screw retention.
   The penetration depth of junior screws into the ski core is only 6 mm.

If necessary, use adult screws and drill bits to penetrate any mounting platform.

(For bindings mounted with adult binding screws, the penetration depth is the same.)

 You must drill a hole deep enough to accommodate the screw length you are using or damage to the ski base may result.

Drill bit length  Length  Diameter								
Skis	Diameter	Length	Reference	Aspect				
Junior Ski Group 3 & 4	4,1 mm 3,6 mm	8 mm	000813					
Adult Ski Group 1 & 2	4,1 mm	9,5 mm	000893					
	3,6 mm	9,5 mm	000892					

# **TAPPING**

Tapping is usually done when the binding screw will come into contact with metal or in the following cases:

- the material is too hard for a screw,
- when the screw insertion would distort or stress the material holding the screw,
- when recommended by the ski manufacturer.
   Failing to tap when necessary can result in top skin or sidewall delamination, broken screws or damage to the ski core.

# To use a Salomon tap and brace:

- **1.** Position the brace so that the tap goes straight into the drilled hole.
- Apply only enough pressure on the brace to start the tap. The tap is a self-cutting tool and you have only to turn the brace for the tap to cut its own way into the core.
- **3.** Make 3 1/2 turns.
- 4. After tapping, turn the ski over and hit the base several times with the palm of your hand to remove any shavings from the hole.

# **GLUE**

# Glue must be used when inserting binding screws to:

- lubricate the screw during insertion,
- create a watertight seal.
- Place a drop of glue on the surface of each hole.

**Caution:** Salomon strongly recommends its own glue for Salomon skis.

# **MOUNTING**

Follow the mounting procedure and also refer to the section "Special cases in mounting".

A Posidrive® n°3 screwdriver, not a Phillips, must be used to mount Salomon bindings. Consult the Salomon Spare Parts Catalog for reference on Salomon screws.

**Caution:** if a power screwdriver is used, <u>adjust</u> the clutch for the appropriate ski core construction (4 Nm maximum) to avoid stripping the threads.

It is advisable to hand check each screw after mounting.

# **INSTALLATION**

# DRIVER TOE

- 1. Position the toe piece over the drilled holes (photo A1).
- Use a crisscross screwing pattern and insert each screw until nearly seated.

  Do not tighten until all screws are in place.

  The provided the p
  - Do not tighten until all screws are in place (photo A2).
- **3.** The base plate of the AFD should be flush with the base plate of the toe piece.

# Z, L, AND C TOES

- First, pull the center mounting hole sliding track out from the binding far enough to insert the screw into the ski (photo A3).
- Tighten the screw until it is firmly seated and hold the toe to keep it from rotating on the ski.
- 3. Next, slide the toe piece towards the seated center screw until the two rear screws align with their respective holes (photo A4).
- **4.** Tighten the rear screws until they are firmly seated.
- **5.** Make sure the toe is screwed tightly to the ski. The top of each screw should be flush with the base plate.

# HEEL PIECE

Place the heel over the prepared holes and tighten the screws using a crisscross screwing pattern.

# SKI BRAKE

- **1.** Do not compress the ski brake before installing it.
- 2. Place the two metal tabs on the front of the brake into the slots in the heel base plate (fig. A5).
- **3.** Rotate the rear of the brake downwards to start the screw in the track.
- **4.** Tighten screws with a handscrewdriver (4 Nm maximum) (photo A6).

**Note:** The brake can be removed to facilitate ski maintenance.

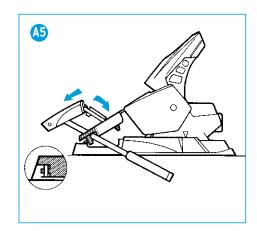
<u>To remove it:</u> turn the center screw toward the left and remove the brake.

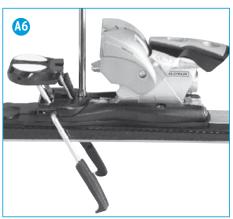
# A1











# SPECIAL BRAKES

Special brakes for fat skis are available, see spare parts catalogue.

# **SPECIAL CASES IN MOUNTING & ADJUSTING**

# **SMARTRAK**

TO BE MOUNTED BY A SALOMON AUTHORIZED DEALER ONLY.

# CONTENTS OF THE BOX

- > 2 Toes mounted on a sliding part
- > 2 Heels mounted on a sliding part
- > 2 Brakes
- > 2 Thin Plates
- > 1 Notice

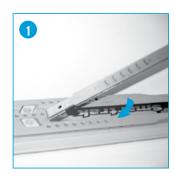


# MOUNTING

- 1. Insert the Thin Plate in the seating ahead the plate (fig. 1).
- 2. Place it correctly with a rotational motion (fig. 2).
- 3. From the rear, slide the Toe piece on the interface until it corresponds with or is just above your boot sole length using the manual lock to authorize the sliding (fig. 3 & 4).
- 4. From the rear, slide the Heel piece on the interface until it corresponds with or is just above your boot sole length using the manual lock to authorize the sliding (fig. 5).
- **5.** Mount the Brake following the usual procedure (fig. 6).

# ADJUSTING EXAMPLE

- **6.** Identify the length of the boot.
- If you have boot sole L 306 mm, adjust the Toe on the 308 mm mark.
   The range in this case is 301 mm to 308 mm (fig. 7).
- 8. If you have chosen the L 306 mm, adjust the Heel piece on the 312 location. The range in this case is 305 mm to 312 mm (fig. 8).
- Step in the boot and check forward pressure (fig. 9).
   The arrow on the housing must be within the scribed area.



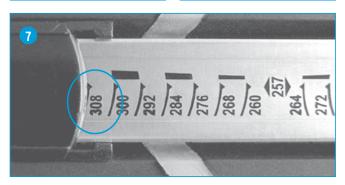




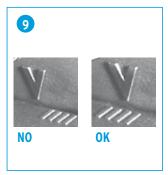












# **SMARTRAK GRIP / GRIP PLUS**

TO BE MOUNTED BY A SALOMON AUTHORIZED DEALER ONLY.

# CONTENTS OF THE BOX

- > 2 Toes
- > 2 Heels mounted on a sliding part
- > 2 Brakes
- > 2 Thin Plates
- ▶ 1 Notice



# MOUNTING AND AJUSTING

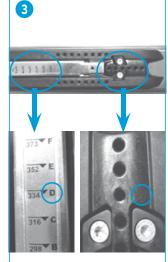
- 1. Insert the Thin Plate in the seating ahead the plate (fig. 1).
- 2. Place it correctly with a rotational motion (fig. 2).
- 3. Identify the length of the boot.
- **4.** Identify the letter that corresponds your sole length. (If you are between two, choose the higher one) (fig. 3).
- Screw the center mounting track to this letter. (4Nm Torque) (fig. 4).
   Mount the Toe piece as usual (fig. 5).
- **6.** From the rear, slide the Heel piece on the interface using the manual lock to authorize the sliding (fig. 6).
- **7.** Mount the Brake following the usual procedure (fig. 7).
- Position your boot in the toe and slide the heel until it touches the boot (fig. 8).
- Step in the boot and check forward pressure (fig. 9).
   The arrow on the housing must be within the scribed area

**Info:** The rear  $N^{\circ}$  is an indication for a quick adjustment of the second ski (fig. 10).

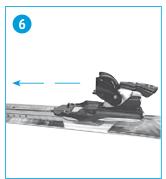






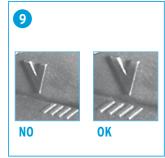


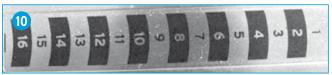














# LIGHTRAK PLATE J L & H L

TO BE MOUNTED BY A SALOMON AUTHORIZED DEALER ONLY.



# MOUNTING AND AJUSTING

- 1. Open and set the blade in straight position and place it on the plate with a rotational motion (fig. 1).
- 2. Identify the length of the boot sole.
- **3.** Mounting of the toe piece:
  - <u>J L model:</u> Identify the letter that corresponds the sole length and screw the toe piece (if you are between two letters, choose the higher one).
  - <u>H L model:</u> From the rear, slide the toe piece on the interface until it corresponds with or is just above the sole length, push the bolt until the "clic" to lock on the toe piece (fig. 2).

**Note:** to move the toe, insert a screwdriver and with a rotational motion lock off the bolt (fig. 3).

4. Mounting of the heel piece:

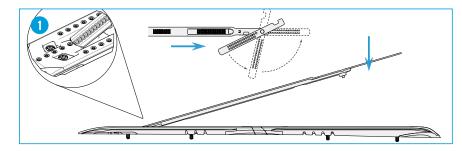
# J L model:

- From the rear, slide the heel piece on the interface using the manual lock to authorize the gliding (fig. 4).
- Mount the brake following the usual procedure (fig. 5)
- Position the boot in the toe and slide the heel until it touches the boot.
- Step in the boot and check forward pressure, the arrow on the lock must be within the scribed area (fig. 6).

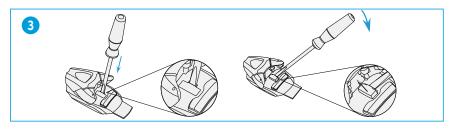
**Note:** the rear N° on the blade is an indication for a quick adjustment of the second ski.

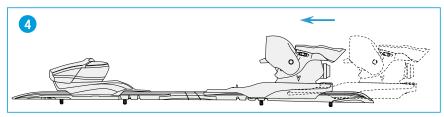
# H L model:

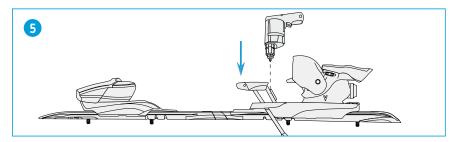
- From the rear, slide the heel piece on the interface using the manual lock to authorize the gliding (fig.
- Mount the brake following the usual procedure (fig.
- Slide the heel piece until it corresponds with or it just above the sole length.
- Step in the boot and check forward pressure, the arrow on the lock must be within the scribed area (fig. 6).

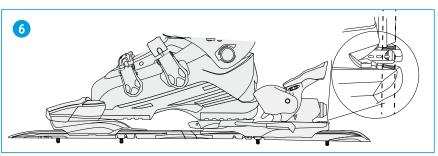












# X 12 & X 16

# TO BE MOUNTED BY A SALOMON AUTHORIZED DEALER ONLY.

# **DRILLING SKIS**

- For mounting the X 12 & X 16 bindings on skis, holes have to be drilled with the Salomon mounting jig (ref. 11847301) to ensure a proper alignment of the binding.
- 2. Check the boot sole length you would like to mount the binding for and drill the "S"; "M" holes which are marked on the jig following the instructions in the chart below:

3.Drill your chosen setup and remove the mounting jig.

**Note:** The X 12 & X 16 bindings have an additional hole in the middle to fix the brake, don't forget to drill this hole.

Sole lengts in mm	Monting oh Heel rail	Mounting of toe rail	Toe PIECE POSITION on the toe rail	Bootcenter related to the "real" bootcenter position in mm	positions	num of to adjust center +/-	
				"+" forward Forward		Backward	
265	"S"	"M"	Position 7	+ 7,0 mm	- 7,0 mm +2		
275	"S"	"M"	Position 7	+ 2,0 mm +2		-1	
285	"S"	"M"	Position 7 - 3,0 mm +3		-1		
295	"S"	"M"	Position 6 - 0,5 mm +4		-1		
305	"S"	"M"	Position 5	Position 5 + 2,0 mm		-2	
315	"M"	"M"	Position 5	- 3,0 mm	+3	-1	
325	"M"	"M"	Position 4 - 0,5 mm +2		+2	-1	
335	"M"	"M"	Position 3	+ 2,0 mm	+3	-1	
345	"M"	"M"	Position 3	Position 3 - 3,0 mm +2		-1	
355	"M"	"M"	Position 2	- 0,5 mm	+2	-1	
max 360	"M"	"M"	Position 2	- 3,0 mm	+2	0	

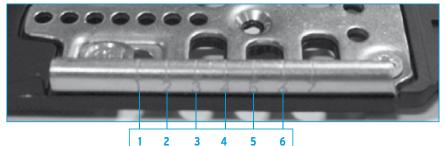
# MOUNTING PROCEDURE

- **1.** Mount the base plate toe by tightening the screws at min. 4 Nm.
- Mount the heel base plate by tightening the screws at min. 4 Nm and mount the brake by tightening the screws in the middle at min. 4 Nm.
- 3. Push the "VAR" lever over to the right and slide the toe piece from the middle towards the tip of the ski.
- **4.** Move the toe piece to the number corresponding to the boot sole length you would like to mount the binding for.
- 5. Slide the heelpiece from the tail forward.
- **6.** Match up the steel band with the boot sole length you would like to mount the binding for.
- 7. Take the "AFD" pedal and place it in the middle and fix it with screw at max. 4 Nm.
- **8.** Put the boot into the binding and check the forward pressure. The screw head needs to be aligned with the housing.



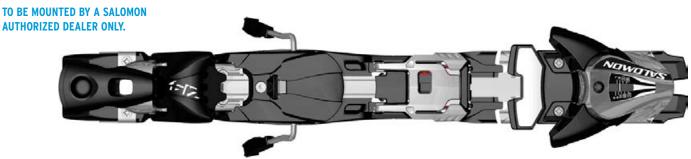






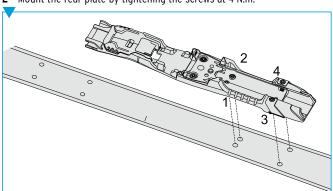
Toe piece

# **Z SPEED PLATE**

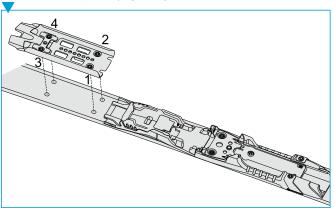


# MOUNTING AND ADJUSTING

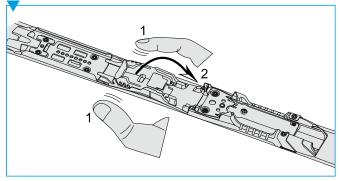
- **1** For mounting Z Speed bindings on skis, holes have to be drilled with the Salomon mounting jig (ref 11139301) to ensure a proper alignment of the binding.
- 2 Mount the rear plate by tightening the screws at 4 N.m.



3 - Mount the front plate by tightening the screws at 4 N.m.

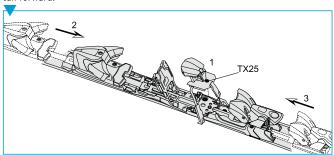


4 - Press and open the central lever.

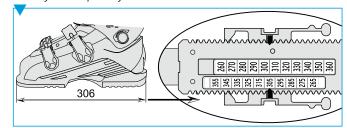


5 - Mount the brake by tightening the screw at 4 N.m with tool Torx 25.

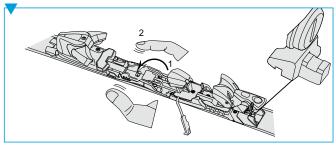
 ${f 6}$  - Slide the toe piece from the front backward and the heel piece from the tail forward.



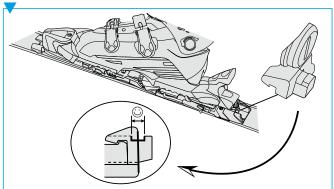
**7** - Select the length of the sole boot and adjust the toe and heel pieces at the length corresponding.



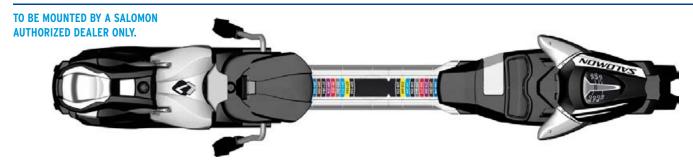
8 - Close and lock on the central lever.



 $\boldsymbol{9}$  - Step in the boot and check the forward pressure-



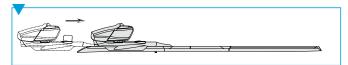
# **EASYTRAK**



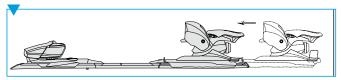
# MOUNTING AND ADJUSTING

# EASYTRAK L7, L9 & L 10

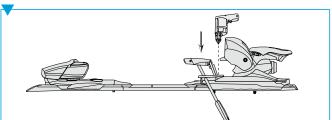
1 - Insert the toe piece from the front and position on the track according to the boot sole length.



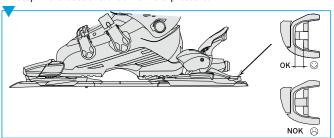
2 - Insert the heel piece from the back and position on the track according to the boot sole length.



**3** - Assemble the break.

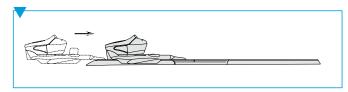


4 - Step in the boot and check forward pressure.

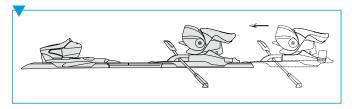


# **EASYTRAK C5**

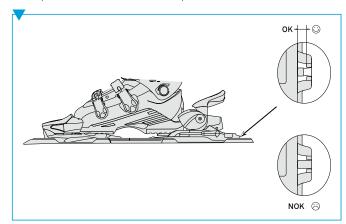
1 - Insert the toe piece from the front and position on the track according to the boot sole length.

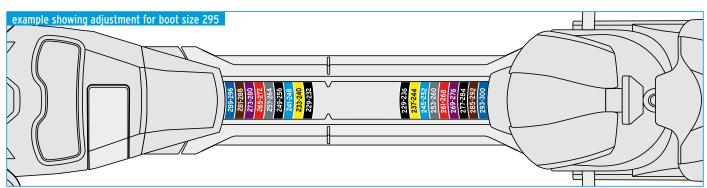


 ${\bf 2}$  - Insert the heel piece from the back and position on the track according to the boot sole length.

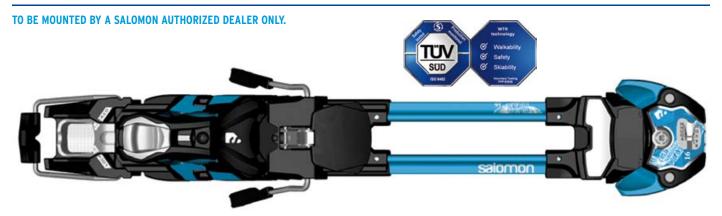


**3** - Step in the boot and check forward pressure.





# **BACKCOUNTRY BINDING « WTR » TECHNOLOGY**



#### **WARNING**

THESE ALPINE BINDINGS ARE INTENDED TO BE USED ONLY WITH THE FOLLOWING SKI BOOTS:

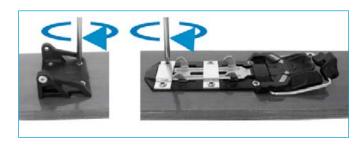
- Alpine ski boots compliant with ISO 5355 standard AND
- Ski boots equipped with « WTR technology » labelled kit of walking soles for touring skiing.

Any use with other ski boots could cause the skibinding-boot system to be faulty and affect release characteristics, which would increase the risk of serious injury while skiing.

Therefore, skiers are warned not to use this product with any ski boots other than those meeting the standards indicated above. Skiers are advised to consult the dealer where this product was purchased, or an equipment specialist at any SALOMON authorized ski dealer of this product, for further information regarding which ski boots meet the standards listed above.

# MOUNTING & ADJUSTING PROCEDURE

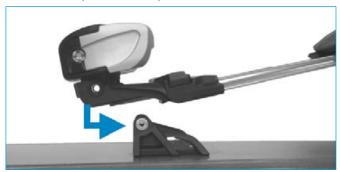
- **1** For mounting Backcountry bindings, holes have to be drilled with the Salomon mounting jig (ref 32670501) to ensure a proper alignment of the binding.
- 2- Mount the toe base plate and the step-in by tightening the screws at 4 N.m



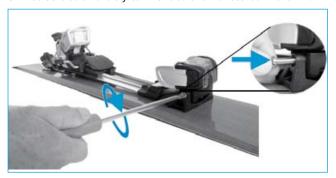
3 - Remove the plastic piece which holds the screw and remove the screw from the toe piece



4 - Insert the toe piece in the base plate



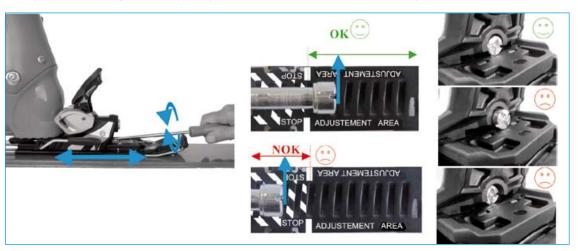
# 5 - Insert the screw and tighten with a screwdriver between 2 and 4 N.m



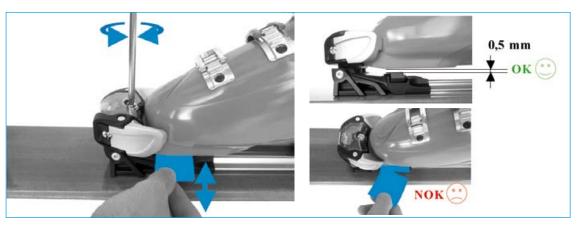
**6 -** Press the heel to lock in the step-in



**7 -** Step in the boot and adjust the heel piece's position with a screwdriver **and check forward pressure.** 



8 - Adjust the boot toe's height by turning the adjustment screw to create a gap between the boot sole and the binding.



# HIKING MODE

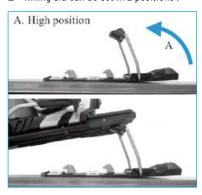
# **SWITCH FROM SKIING TO HIKING POSITION**

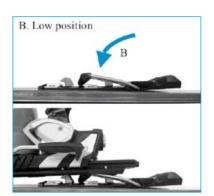
1 - Use the ski pole to push backward the step in, lift the ski boot, and flip forward the hiking aid.





2 - Hiking aid can be set in 2 positions :





# **SWITCHING FROM HIKING TO SKIING POSITION**

1 - The binding must be cleaned from snow, ice and dirt.
DO NOT put the hand between the ski and the binding when switching to skiing position





2 - Push back the climbing aid and lock down the binding heel piece





 ${\bf 3}$  - Before skiing check that the binding is correctly locked in





# REPLACING SKI BRAKE

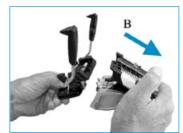
Refer to the Salomon spare part catalogue to know which brake to use according to the different ski widths and binding models

1 - Turn the screw (A) and remove forward the heel piece from the rear plate (B)

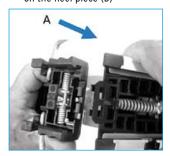


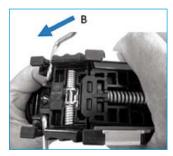
2 - Push on the ski brake (A) and separate it from the heel piece (B)





**3** - Take the new ski brake (A), insert the two lugs and assemble the ski brake on the heel piece (B)





**4** - From the front, slide backward (A) the complete heel piece and readjust the heel piece's position (B).

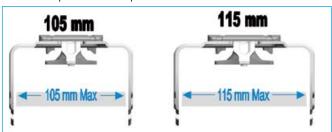




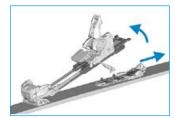
**5** - Step in the boot and and **check forward pressure** as described above: §.7 Mounting and adjusting procedure

# CRAMPON BACKCOUNTRY

Use the crampon which is adapted to the ski waist width.

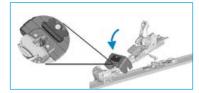


1 - Push backward the step in, lift the binding, and flip forward the hiking aid



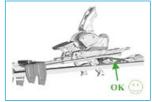


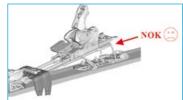
2 - Insert the crampon in the two lugs of the toe piece and lock the crampon





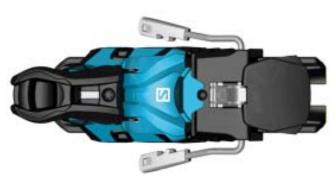
3 - Before using crampons make sure that the hiking aid is in the low position. NEVER USING CRAMPONS IN THE HIGH POSITION



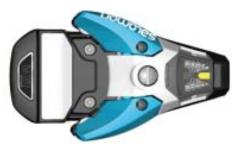


# STH<sup>2</sup> BINDING « WTR » TECHNOLOGY

TO BE MOUNTED BY A SALOMON AUTHORIZED DEALER ONLY.







#### WARNING

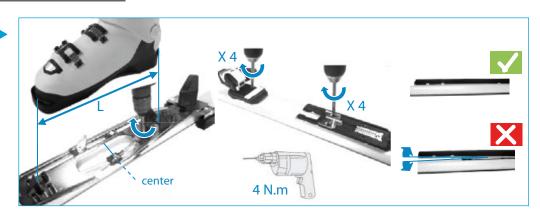
THESE ALPINE BINDINGS ARE INTENDED TO BE USED ONLY WITH THE FOLLOWING SKI BOOTS:

- Alpine ski boots compliant with ISO 5355 standard
- Ski boots equipped with « WTR technology » labelled kit of walking soles for touring skiing. Any use with other ski boots could cause the ski-binding-boot system to be faulty and affect release characteristics, which would increase the risk of serious injury while skiing.

Therefore, skiers are warned not to use this product with any ski boots other than those meeting the standards indicated above. Skiers are advised to consult the dealer where this product was purchased, or an equipment specialist at any SALOMON authorized ski dealer of this product, for further information regarding which ski boots meet the standards listed above.

# MOUNTING & ADJUSTING PROCEDURE

1 - Use the Salomon mounting jig (ref: 32981601) and drill the skis following the ski and binding manufacturer's instructions. Mount the toe piece and the rear plate on the ski by tightening the screws at 4 N.m (check if rear plate is correctly mounted).



2 - Assemble the ski brake with the heel piece.



3 - From the center of ski, insert the heel piece on the rear plate and adjust at the "mid" position with a screwdriver.



**4** - Step in the ski boot in the binding, check and adjust the forward pressure.



5 - Select and adjust the setting release values for toe and heel pieces.



6 - With the screw on the left side of the toe piece, adjust the toe wings to come in contact with the ski boot.

( see §: ADJUSTING - WING ADJUSTMENT > p32 ).



7 - Adjust the toe height with the adjustment screw until to create a gap of 0,5 mm between the boot sole and the binding.

( see § : ADJUSTING - TOE HEIGHT ADJUSTMENT > p32 ) .



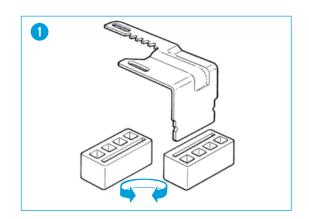
# **FAT SKIS**

Refer to the spare parts catalog to know which jigs and brakes to use according the different ski widths and binding models.

The reversible pads allow the jig to adapt to different ski widths (fig. 1).

Procedure for changing the pads to the other side:

- 1. Pull the pad off the arm of the jig.
- 2. Change the pad to the desired position.
- 3. Insert the pad into the arm of the jig.
- 4. Repeat this procedure:
  - On the other 3 arms for mounting the bindings symmetrically.



# **ADJUSTING**

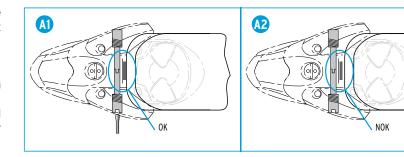
Once the binding has been mounted, it is necessary to make the proper binding-to-boot adjustments. All Salomon bindings may be closed manually by simply lifting the heel lever. Adjustments must be re-checked every time boots are changed. Use the following procedure.

# **WING ADJUSTMENT**

- Manual adjustment (fig. A1): only one adjustment screw, which is located on the left side of the toe piece.
- Place the boot in the binding (closed position).
- Loosen the micrometric screws to loosen the wings.
- Check that the tip of the boot sole is flush against the butt plate (fig. A2).

This contact is made when the boot has lateral play. Do not over tighten, the boot may no longer be centered.

**2. Automatic adjustment:** the wings on the toe cup are self-adjusting.



# **TOE HEIGHT ADJUSTMENT**

- With the boot in the binding, raise the toe by turning the adjustment screw, located on top of the toe piece, counter clockwise.
- Pull the boot back to create a gap between the boot sole and the binding AFD.
- Lower the toe height by turning the adjustment screw clockwise to obtain the recommended gap (see the following chart (fig. B1-B2).
- For models with automatic wing and automatic height adjustments: make forward pressure adjustment only. See instructions in following chapteras.

**Note:** Always check the forward pressure after making toe adjustments.

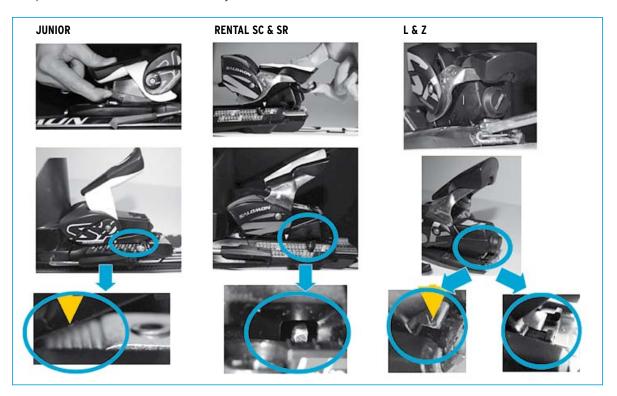
	Models	Wing adjustment	Toe height adjustment
Driver 12 to Driver 16	BI	simultaneous	manual 0,5 mm
C 5 To Z 14	B2	automatic	automatic

# FORWARD PRESSURE ADJUSTMENT

# With tool less and tab adjustment:

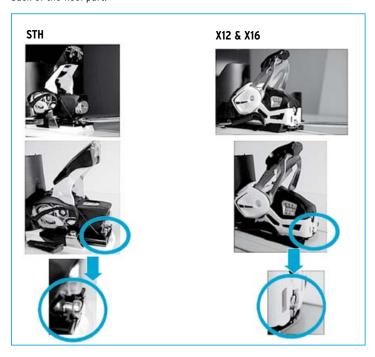
With the boot in the binding (closed position), make sure the arrow. The extremity of the tab for the version without arrow, line up within the scribed area of the heel housing.

If this adjustment is incorrect, remove the boot from the binding, lift the adjustment tab to slide the heel into the desired position. Re-insert the boot to check the adjustment.



# With screw adjustment:

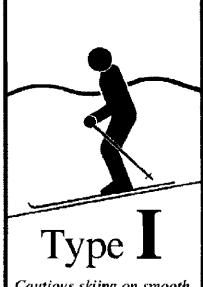
With the boot in the binding (closed position), adjust the forward pressure to align the top of the head screw with the back of the heel part.



# **CLASSIFY YOURSELF**

#### DETERMINING YOUR SKIER TYPE IS YOUR RESPONSABILITY

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 may increase your risk of injury.



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.

Skiers not classified as Type I or III

Туре 🎹

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 hetention settings. This corresponds to decreased releasability in a fall in order to gain a decreased risk of inadvertent binding release.

moderate to steep pitch

This classification is not recommended for skiers 47lb (21kg) and under.

If from experience, you have been dissatisfied with the release/retention settings that result from your skier classification, mention this to your binding technician.

# RELEASE SETTING ADJUSTMENT

CHART 1								СНА	RT 2			
Skier's parameters Inspection			Examples for Initial indicator value  These are only the starting point in the binding setting process and may need to be modified in order to achieve the correct measured release value.  Z (presetting), depending on boot sole length									
Skier's mass kg	Skier's height m	Skier code	paran Twist <i>M</i> Z N.m	Forward lean MY	≤ 230 mm	231 mm to 250 mm	251 mm to 270 mm	271 mm to 290 mm	291 mm to 310 mm	311 mm to 330 mm	331 mm to 350 mm	≥ 351 mm
			5 a	18 <sup>a</sup>			111111				111111	
10 to 13		Α	8	29	0,75	0,75	0,75					
14 to 17		В	11	40	1,0	0.75	0,75	0,75				
18 to 21		C	14	52	1,5	1,25	1,25	1,0				
22 to 25		D	17	64	2,0	1,75	1,5	1,5	1,25			
26 to 30		Е	20	75	2,5	2,25	2,0	1,75	1,5	1,5		
31 to 35		F	23	87	3,0	2,75	2,5	2,25	2,0	1,75	1,75	
36 to 41		G	27	102		3,5	3,0	2,75	2,5	2,25	2,0	
42 to 48	≤ 1,48	Η	31	120			3,5	3,0	3,0	2,75	2,5	
49 to 57	1,49 to 1,57	1	37	141			4,5	4,0	3,5	3,5	3,0	
58 to 66	1,58 to 1,66	J	43	165			5,5	5,0	4,5	4,0	3,5	3,0
67 to 78	1,67 to 1,78	К	50	194			6,5	6,0	5,5	5,0	4,5	4,0
79 to 94	1,79 to 1,94	L	58	229			7,5	7,0	6,5	6,0	5,5	5,0
≥ 95	≥ 1,95	М	67	271				8,5	8,0	7,0	6,5	6,0
		N	78	320				10,0	9,5	8,5	8,0	7,5
		0	91	380				11,5	11,0	10,0	9,5	9,0
			105	452						12,0	11,0	10,5
			121	520								
			137 <sup>b</sup>	588 <sup>b</sup>								

**NOTE 1** For skiers of 13 kg and under, no further correction is appropriate. **NOTE 2** For skiers of 17 kg and under skier type - 1 is inappropriate. a : Lowermost tolerance limit. - b : Uppermost tolerance limit.

# **ADJUSTMENT PROCEDURE**

The release setting adjustment is obtained by using the adjustment cap or adjustment screws. The release setting is visible on the indicator. Adjust the toe piece and heel piece to the same settings. It is highly recommended to use a measuring device to check the release torque (see ISO 11088).

# Release value selection and adjustment

The release settings must be used by the technician to determine the appropriate adjustment for each skier, which conforms to the following norms: ISO 11088, ASTM F 939, ASTM F 1063, and AFNOR FD S 52-448 (documentation fascicle).

# SKIER CLASSIFICATION

This classification has to be determined by a dialogue between the skier and dealer, which helps to take into account the diverse factors that influence the adjustment. These factors are explained in the norms cited above.

# > Type I skiers:

- Ski conservatively.
- Prefer slower speeds.
- Ski on easy to moderate slopes.
- Intermediate level, but not in good physical condition.

- Good skiers, smooth and supple style, emphasizing safety.
- Favor lower than average release/retention settings. This corresponds to an increased risk of inadvertent binding release in order to gain increased release capacity in a fall.

# > Type II skiers:

- Intermediate skiers in good physical condition.
- Prefer a variety of speeds.
- Ski on varied terrain, including most difficult trails.
- All skiers who do not meet all the descriptions of the other skier types.

# > Type III skiers:

- Ski aggressively.
- Normally ski at high speeds.
- Prefer moderate to steep terrain.
- Favor higher than average release/retention settings. This corresponds to decreased capability to release in a fall in order to decrease risk of inadvertent binding release.
- Type 3 settings should not be used by skiers of less than 22 kg.

# **OTHERS SKIERS TYPE**

# > Type I- skiers:

- Skiers looking for a lower release setting than type 1.

- Recommended for beginners over 25 years old.

# > Type III+ skiers:

- Very strong skiers, on challenging terrain.
- Skiers looking for a higher release setting than type 3 skiers.

Skier type does not have the same meaning as skier ability. For instance, an advanced skier who skis all-terrain, but is not particularly aggressive, may be able to use Type 2 settings.

# ADJUSTMENT PROCEDURE

### 1. Find the skier's code in chart 1.

Locate the skier's weight in the first column and the skier's height in the second column. If the skier's weight and height are not on the same row, select the skier's code on the highest row.

# 2. This skier code is appropriate for Type 1 skiers.

For Type I- skiers: move up one row.

**For Type II skiers:** move down one row towards the bottom of the chart.

**For Type III skiers:** move down two rows on the chart.

For Type III+ skiers: move down three rows on the chart.

# Bindina / RETAIL

# >> 3. For skiers who are 50 years or older, or under 10 years: move up one row on the chart.

- For skiers weight 13 Kg and under, no further correction is appropriated.
- For skiers weight 17 Kg and under, type 1- skier is inappropriated.
- After having determined the skier code, locate the column in chart 2 that represents the skier's boot sole length (in mm).
- 5. The box at the intersection of the skier's boot sole length column and the skier's code row, shows the initial indicator setting for the skier. Adjust both toe pieces and heel pieces accordingly.
- **6. Caution:** If the box at the intersection of the skier's boot sole length column and the skier's code row is empty, move horizontally on the same row and use the closest indicator setting.

### 7. If it is obvious that the bindings release inadvertently (unnecessarily), at the request of the skier, the dealer can:

- At first, increase the level in the forward fall, that is, on the heel piece.
- Then, only if the inadvertent releases persist, increase the level in torsion, that is, on the toe piece. Proceed very progressively in stages of half-points.

# FINAL CHECKING

# **VISUAL AND MECHANICAL INSPECTIONS**

A Salomon certified technician must sign or initial the Workshop form indicating that all systems inspections have been performed.

A final check is your quality control measure to verify that all required procedures have been properly completed and involves the following steps:

- 1. Visual inspection of system components.
- 2. Test for elastic travel and return.
- **3.** Release value within specified range and boot-binding compatibility.

# VISUAL INSPECTION OF SYSTEM COMPONENTS TROUBLESHOOTING PROCEDURE

After the bindings have been properly mounted and adjusted, visually inspect the <a href="mailto:ski/boot/bindingsystem">ski/boot/bindingsystem</a>.

## > The boot:

# Check:

- for gross irregularities where the boot contacts the binding and the AFD (deformation, wear...),
- that the boot conforms to the norm (DIN, ISO or ASTM markings).

If the boots are not marked, check with the supplier.

These bindings are not designed to function with boots that do not conform to the norm.

- that the boot has not started to crack or break.

#### The boot toe

Check for the absence of:

- rubber and/or metal tip protectors
- mold flashings
- a ramp or bevel in front of the AFD area
- grid pattern or tread in the AFD area
- excessive wear
- a toe sole extension with corner radius of less than 7 mm
- asymmetrical shape of the toe sole.

# The boot heel

# Check for:

- debris lodged in the sole
- scraped or improperly canted boot sole
- cut-outs in the heel sole that catch on the entry pedal
- cut-outs in the sole that impede proper brake function.

**Note:** If you are uncertain of boot compatibility, perform the 'Clean vs Lubricated' test. Boots that fail this test or violate any of the above points should not be used with any Salomon binding.

#### > The ski:

#### Check for:

- mounting screws protruding through the base
- delaminated sidewall. This can be detected by running your fingers along the sides of the ski.
- base plate flush with ski surface
- delaminated topskin
- pre-drilled holes. Bindings shoul d not be installed on skis that have already been drilled for three or more sets of bindings.

# The binding:

# The toe piece

# Check for:

- stripped, loose or missing screws
- condition and location of the AFD (ripped, loose, imbedded dirt, boot sole pattern, tread imprint, etc)
- condition of anti-friction inserts (where applicable)
- missing or unreadable adjustment indicators and missing windows
- bent or broken base plate, principal axis or housing
- stripped or jammed toe height and cup adjustment screws
- jammed release adjustment
- other visible wear.

# The heel piece

#### Check for:

- stripped, loose or missing screws
- improperly installed brake
- defective heel track
- bent or broken base plate, track or heel guide
- missing Delrin inserts in the heel guide
- iammed release adjustment
- unreadable indicators
- other visible wear.

### The ski brake

# Check for:

- improper installation
- broken entry pedals
- bent brakearms
- strength of ski brake A brake must not compress totally when the ski
- is set on a flat surface.
   other visible wear
- proper position of brakes
- They shouldn't touch the ski while they are functioning (especially on fat skis).

# The complete system

Place the boot in the binding and check the accuracy of:

- toe height adjustment (if applicable)
- toe cup width adjustment (if applicable)
- forward pressure adjustment
- release adjustment settings
- symmetrical mounting of bindings to ski center line (+/- 1 mm)

This should be in the same location on both skis. If you discover a correctable problem, repair the problem and re-test.

If the system still falls outside the "in-Use range", perform the 'Clean vs Lubricated' test.

### TEST FOR ELASTIC TRAVEL AND RETURN

### > Laterally (fig. 1):

Secure the ski. Hit the forefoot area of the boot with a rubber hammer. Use sufficient force to move the boot off-center, but not hard enough to release the system.

The boot should move off-center at least 5 mm and return to center within 2 mm of its original position.

### > Vertically (fig. 2):

Put the boot in the binding, depress the heel

lever while pulling forward on the upper cuff of the boot until the boot heel lifts at least 5 mm. Release both hands simultaneously. The boot should go back in place quickly and smoothly. This check can be performed either manually or by using a mechanical device. If a measuring device is used, follow the recommendations of the test device manufacturer for proper procedure.





### RELEASE VALUE WITHIN SPECIFIED RANGE AND BOOT/BINDING COMPATIBILITY



Testing of release values with a test device is recommended (fig. 3).

If a test device is not used, the skier should be informed.

In addition, the skier must be warned about the risk of possible breakage of boots and bindings that have been subjected to shocks or abnormal stress.

### > Test the toe:

First, exercise the toe by releasing it once in each direction.

Then, using test device, measure and record the twist release value in each direction. The measured release value should be considered to be the middle quantitative value of three measured releases.

If the first two measured values are the same, there is no need to take a third measurement. See examples of middle quantitative values (Chart. 1). The toe passes this inspection if the middle quantitative values in both directions fall within the 'Inspection range'.

See sample "System inspection ranges" (Chart. 2).

### Symmetry test note

You should be aware of the possibility of an asymmetric release.

If your tested values for clockwise and counterclockwise release appear to be at opposite extremes of the inspection range, you may have an installation error or incompatible boot.

Troubleshoot the system and re-test after the problem has been corrected.

### > Test the heel:

First, exercise the heel by releasing it once. Using a test device, measure and record the heel release value

The middle quantitative value of three heel releases should fall within the +/- 15% "inspection range".

### > Release value verification - failure:

When the technician is satisfied that all required procedures have been completed according to Salomon's recommendations in this manual, he or she must sign the Workshop Form. (The signing technician must currently be certified by Salomon.)

**Note:** During manufacturing, Salomon precision tests every binding up to 5 times to assure that it functions properly and is calibrated correctly. It is extremely rare that a new component would be out of calibration unless there is damage.

### > Troubleshooting:

Boot/binding systems wear with time. Mechanical inspection allows you to identify when the ski/boot/binding system is not working as it was originally intended. Readjustment of the binding is not a sign of malfunction, but can be a sign of normal wear.

### > Test for lateral travel - failure:

Re-check all binding-to-boot adjustments.
Re-inspect the boot and the binding according to the Visual Inspection criteria. If the boot is dirty, clean the sole with a solution of soap and water. If the binding is dirty, clean it according to the procedures described in this chapter under 'Maintenance'.

Re-test the system for elastic travel and return.

### > Test for vertical elastic travel - failure:

Clean the boot sole of any snow, dirt or debris. Check for excessive wear at the boot heel. Repair or replace any non-DIN boot. Check that the boot enters the binding correctly. Align the boot with toe and heel cups and re-insert the boot. Check the release setting. It should not exceed the minimum or maximum visual indicator setting and should be set appropriately for the skier.

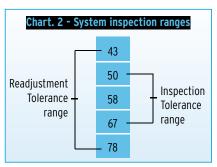
If the measured +/- Mz and My values are located outside of the +/- 15% inspection range, consult the manufacturer's instructions for procedures concerning malfunctions.

If after this procedure, the measured values are within the readjustment range of +/-30%, the binding can be readjusted.

These readjustments should allow you to obtain measured values as close as possible to the selected individual release torque within the +/- 15% range.

If the release is still outside the +/- 30% readjustment range after having followed the procedures for malfunctions, do not readjust the binding unless it is specifically authorized by the manufacturer (chart. 1).

Cha	Chart. 1										
Three release values	Middle quantitative value										
45 - 40 - 50	45										
60 - 50 - 50	50										
30 - 40 - 50	40										
55 - 65 - 60	60										



### BOOT/BINDING COMPATIBILITY DIAGNOSIS

#### Clean vs lubricated test

- **1.** Determine the measured release value in the ski/boot/binding system without lubricant.
- 2. Determine the measured release value in the ski/boot/binding system after lubricating all contact points between the boot and binding with a lubricant specified by the manufacturer. If nothing particular is specified, use soap and water.
- Calculate the ratio between the two tests by dividing the result with the lubricant by the result without it.
- **4.** If the quotient is above 1.2 or under 0.8, the system is considered to be incompatible. If the boot test result is a satisfactory +/- 30%, but the binding does not release within the 'readjustment tolerance' range, check the calibration of the adjustment machine. Have another technician redo the test.

If the system still falls outside the range, the binding should not be used.

## SKIER INSTRUCTION AND WARNING

In principle an adjustment report is established by the ski shop and delivered to the user.

<u>It</u> <u>shall</u> <u>at least contain the following information:</u>

- skier's parameters,
- indicator value,
- measured value of Mz and My, or pass/fail result of the system test.

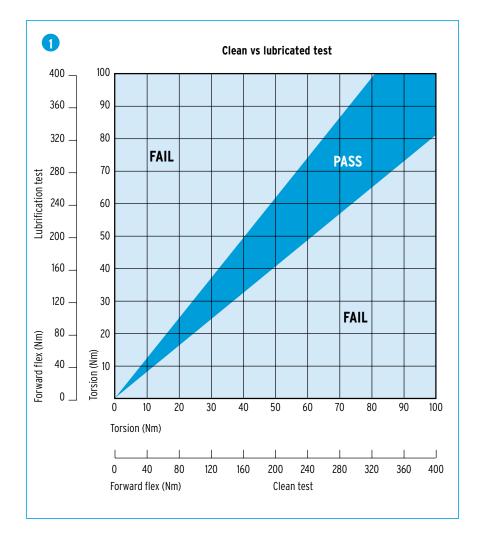
The exact content of the report and its delivery conditions are defined by the national standard organizations 11088.

### > Explanation of entry/exit/re-entry:

The proper use of the system (entry, exit and re-entry) should be explained using the skier's own system as an example.

### > Receipt of in-box instructions and warranty:

When a skier purchases a new binding, it is required that s(he) also receive the instructional pamphlet included in each binding box.



### **MOUNTING**

The five steps to follow for mounting and adjusting rental bindings are the following:

- 1. Preparation
- 2. Installation
- **3.** Binding to boot adjustments
- **4.** Release value adjustment
- 5. Rental visual and mechanical inspections.

The Rental products are usually intended to remain under the control of the Certified Rental Dealer.

Therefore, they can be shipped without instructions or individual packaging.

However, if these products are in fact sold, you absolutely have to supply your customer with the

appropriate instructions. Upon request, Salomon will supply you with a document containing important information.

### **PREPARATION**

It is important to maintain consistent procedures when mounting any Salomon binding. Any boot used with a Salomon rental binding must be visually inspected for compatibility.

### To use the Synchrosysteme you need:

- Synchrosysteme jig references 001003 and 001040.
- adjustment tool reference 000902.

### The bindings that are compatible with the Synchrosysteme are the following:

Z12 SC. Z10 SC. L10 SC. L 9 SC. L10 SR. L7 SC. L7 SR. T5 SC. C5 SR.

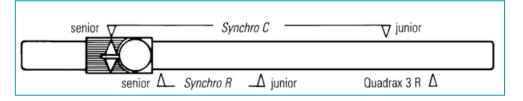
The Synchrosysteme can be used with all standardized boots (AFTM, DIN, ISO) from all brands. The measuring device can be used if skiers come in the shop with their boots on.

### **JIG SELECTION**

### SYNCHRO RENTAL JIG 001003

A single mounting jig for Adult and Junior skis with the following positions: Adults (sizes 22-34) for skis > 140 cm. Junior (sizes 16-26.5) for skis 80-140 cm.

**) Jig mounting position selection** Example: Senior Synchro Center position.



	RENTAL BINDINGS										
JIGS POSITIONS 001003 & 001040	Z12 SC Z10 SC L10 SC L9 SC L7 SC	L10 SR	L7 SR	T5 SC	C5 SR						
Synchro C Senior	•										
Synchro R Senior		•									
Synchro C Junior				•							
Synchro R Junior			•								
Quadrax 3 R					•						
Soles Lenght	260 mm <-> 382 mm	268 mm <-> 348 mm	230 mm <-> 308 mm	216 mm <-> 304 mm	190 mm <-> 246 mm						

### **INSTALLATION**

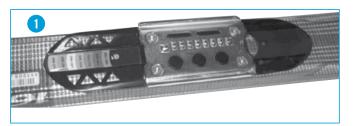
### SYNCHRO RENTAL

For mounting Synchro Rental bindings, follow the same procedure as for the retail bindings.

### SYNCHRO CENTER

### **CONTENTS OF THE BOX**

- > The heel mounted on a plate,
- > The toe mounted on a sliding plate,
- > The position indicator,
- The premounted track assembly with yellow screw (Adult skis).
  Caution: the toes mounted on the sliding plate are specific to RENTAL products.
- > Brake.
- 1. Position the rental jig (ref. 001003 or 001040 for a fat ski rental) on the ski.
- **2.** Then drill through the jig's proper bushings. Follow the same procedure as for retail bindings (drilling, tapping, glue).
- 3. Mount the premounted track assembly orienting the sticker toward the back of the ski (photo. 1).
- **4.** Mount the heel aligning the holes, and tighten the screws (photo. 2).
- **5.** Mount the brake according to the usual procedure.
- **6.** To Position the toe piece:
  - Place the toe, mounted on the sliding plate, in front of the track and slide it until it stops.
  - Depress the manual adjustment button (located on the front of the toe) and slide the toe all the way back.
  - Slide the indicator forward and clip it on the sliding plate (photo 3) either manually or with a flat Salomon screwdriver (ref. 000902).
- 7. To adjust the toe:
  - Hold the toe and depress the manual toe adjustment button. The toe is free to move (photo 4).
- **8.** To take the toe off the track:
  - Place the toe on the A position of the position indicator.
  - Unclip the position indicator with a flat Salomon screwdriver (photo 5).
  - Depress the manual toe adjustment button; this way, the toe can slide forward off the track.











### SYNCHRO CENTER

### > Binding to boot adjustments without using the Synchrosysteme:

Easy glide manual heel adjustment:

- Position the boot in the toe piece.
- With one finger, simply lift the adjustment loop at the back of the heel and slide it forward until the binding cup contacts the boot heel.
- Release the loop, push boot down and check the forward pressure adjustment.

To do this, you should see a little metal guide in the indicator **(fig. A)**. **Note:** If a correction is necessary, reopen the heel to move it and then re-check.

### > Wing adjustment:

Follow the procedure.

### > Rental toe height adjustment:

Follow the procedure.

### > Release value adjustment:

All Salomon rental bindings must be adjusted by using the Adjustment chart.

### > Rental visual and mechanical inspection:

Whenever a binding looks particularly dirty or if visual inspection reveals that something may be wrong with the system, the system should be cleaned, lubricated and subjected to mechanical inspection.



### **MAINTENANCE**

Proper maintenance of rental systems includes a complete inspection of the entire rental inventory prior to the ski season.

This should be followed by periodic in-season inspections to help ensure that all components are functioning correctly.

#### > Pre-season:

- 1. Visually inspect and clean all equipment in inventory.
- 2. Test all bindings using selected reference boots and a mechanical testing
- Test a sampling of boots in inventory using selected reference bindings and a mechanical testing device.

#### ) In-season:

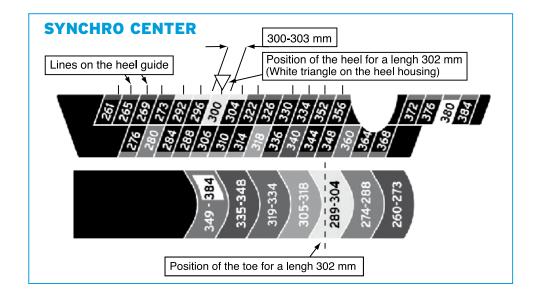
- **1.** At specified intervals, select samples from inventory to be tested.
- 2. Inspect visually using the same procedures that apply to pre-season.

#### > End of season:

To prepare the rental equipment for summer storage, lower all the binding release adjustments to the minimum. Close the binding heel pieces.

Visually inspect, clean, repair and lubricate each rental system:

- 1. To remove the heel, slide the housing backward off the track.
- 2. Clean the track with a damp rag or cloth. Do not use solvents, hot water or pressurized water to clean bindings. Solvents may cause permanent damage to the plastic structure by dangerously modifying the products' technical characteristics. The markings can also be erased.
- **3.** Wipe any dirt from the underside of the heel housing and from the area under the open heel cup.
- **4.** Apply Salomon grease (reference 000905) sparingly to the underside of the heel housing, the heel track and the area under the open heel cup.
- **5.** Replace the heel on the track.
- 6. The brake is removable to facilitate ski maintenance.
- 7. Store in a cool, dark, ventilated place.



### INSPECTION

### AID FOR APPLICATION OF ISO 13993 concerning

- rental ski shop practice
- sampling and inspection of complete and incomplete alpine ski-binding-boot systems in rental applications (this supplement does not replace ISO 13993).

To keep your rental equipment in good condition while minimizing liability we recommend the following program (this comes out of the ISO 13993 standard).

### **RENTAL INSPECTION SUMMARY**

Since it is impractical to perform a full inspection each time a system is rented, a routine of preseason and inseason 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.

### PRESEASON INSPECTION

<u>Preseason inspections are performed on components of the release system:</u> 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.

### INSEASON INSPECTION

Inseason 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 test result within the Inspection Tolerance (or Inspection Range).

#### **DIRECTIONS OF RELEASE**

Unless otherwise specified (see Inseason Inspection), the directions of release to be tested are forward lean and clockwise and counterclockwise 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.

(Add other terms from ISO 13993 or ASTM F1064 that are not defined elsewhere in the tech manual).

### 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 be easily identified.

- Select five single boots with sole lengths as specified in Chart A for the binding type to be tested: adult, junior, or child.
- **2.** Clean all five boots with a mild detergent and water.
- Adjust a rental binding to the release indicator setting specified in Chart A for the binding type.
- **4.** Fit the binding to the boots 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 and CCW twist release.
- 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.
- 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 preseason maintenance.

It is also a good way to determine if maintenance is adequate and which units have outlived their usefulness and must be removed from inventory.

- 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.
  - e. (other product specific inspections if required)
- Fit each binding to the Reference Boot and adjust the release indicators to the value in Chart A.
- **4.** Check that the heel track and toe track code (if any) agree with the sole length code (if any) 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. (other product specific procedures if required).
- **7.** Manually release the binding 3 times in each direction.
- **8.** Lubricate all boot/binding interfaces with a mild liquid detergent and water solution.
- With the Ski Binding Test Device determine the Release Torque for each direction of release (forward lean and both directions in twist)
- Record "PASS" in the binding's maintenance record if Test Results are within the Inspection Ranges provided in Chart A.
- Set the ski aside if the Test Result in any directions of release is outside the Inspection Range in Chart A.
- 12. Follow Troubleshooting Procedure 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.

Chart A: Preseason Binding Inspection													
Skier 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 Nm	Forward in-use range Nm				
E	Children	258	2,0	20	75	17-23	64-87	14-27	52-102				
J	Junior	306	4.3	43	165	37-50	141-194	31-58	120-229				
L	Adult	327	5.8	58	229	50-67	194-271	43-78	165-320				

#### PRESEASON BOOT PREPARATION

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

- 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. If the boot contacts the binding, brake, or AFD in areas other than the designated contact points, it may be incompatible with the binding (product specific figure or description).
  - 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 inferiors 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.
  - 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.
- 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.

- 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. 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 both boot/binding compatibility and boot interchange ability.

**Note:** when using **Chart A**, in the Boot Inspection procedured that follow, the Sole Length and Release Indicator Setting Columns should be ignored.

- 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 binding adjustment chart (ISO 11088).
- **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 Chart A. Use the Reference Torque corresponding to Skier Code (L) for the Adult binding, (J) for the 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 Chart A for the Skier Code used to set up the Reference Binding (L, J, or E).
- 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.
- 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 the equipment (and lubricate the binding before returning it to service).

### INSEASON SAMPLING AND INSPECTION

The Inseason 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 of 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 **Chart 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.

### **INSEASON INSPECTION**

- Take a random sample of the rental inventory as determined by Chart B.
   Take half the sample from inventory as it is either rented or returned and the remainder from inventory available for rental.
- 2. Wipe the boot clean and cycle the boot/ binding systems at least once in each direction.
- **3.** Test sample units in Twist (one direction only) and Forward Lean.
- **4.** Compare the Test Results with the Inspection Range for the appropriate Skier Code.

- **5.** If the results are within the Inspection Range, the unit passes.
- 6. If the results are outside Inspection Range but within the In-Use Range, count the unit as a Class I Deviation.
- **7.** If the results are outside the In-Use Range, count the unit as a Class II Deviation.
- 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.

- 9. If more than the maximum number of Class I Deviations given in Chart 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. For Troubleshooting Procedures following a Failed Inseason Inspection.
- 10. Record the date the sample was tested, the number of units tested the number of Class I and Class II (or III) Deviations, whether the sample passed or failed and any actions taken. There is no need to record the identity of units tested or actual Test Results

Chart B: Sample Size												
Inventory Size	100	200	300	400	500	600	700	800	900			
Sample Size Units	16	20	30	40	50	60	70	80	80			
Maximum Class I Dev.	3	4	6	8	10	12	14	16	16			

### **BROKEN MOUNTING SCREW**

<u>Salomon screw extractor kit:</u> it comes with two bits of different lengths.

The longer bit is for use with the Salomon jigs for adult skis.

The shorter bit should be used with the Salomon jigs for junior skis.

The procedures for using both bits are the same. When a screw or tap breaks in a ski, it must be removed carefully to avoid further damage.

#### Follow this procedure:

- 1. Fit the extractor drill bit into the electric drill with the shoulder touching the chuck.
- 2. Fasten the appropriate jig onto the ski.
- **3.** Position the correct jig bushing directly over the broken screw.
- Drill slowly around the broken screw using an up-and-down movement to let the shavings escape.

Caution: do not hit the screw.

**5.** Continue until the chuck touches the bushing of the jig.

- **6.** The broken screw will come out inside the extractor bit.
- **7.** Remove the screw using a pair of pliers.
- **8.** Turn the ski over and tap lightly to remove all shavings.
- **9.** Put a drop of glue into the hole.
- **10.** Insert a plug from the kit using a hammer.
- **11.** Insert binding screw and tighten using a hand driver. Do not over tighten.
- 12. When a hole simply needs to be widened to accept the plastic plugs, use an 8 mm diameter bit. Do not drill deeper than 10 mm.

### **STRIPPED SCREWS**

For a stripped screw, use the repair kit 000878. For this operation, use the corresponding jig and position it properly by lining it up with the hole to be repaired.

When drilling, the drill bit must be perpendicular to the surface of the ski.

Make sure you don't go beyond the plug once it is in place. You can file it down to make it level with the surface.

### MOBIL PLATE REPLACEMENT (SCP: Salomon Control Pedal)

All Salomon bindings have replaceable SCPs. The specific SCP item numbers can be found in the Salomon Spare Parts catalog.

Replacement procedures for SCPs are follows.

On Toes tighten on Interfaces and Skis (SMARTRAK GRIP/GRIP PLUS - SC - ITF):

- > 78830101 for Z14 Z12 Ti Z12 Z12 Ti SC -Z10 Ti AXE+ - Z10 Ti - Z10 Fis 20 - Z10 Ti SC - Z10 - 710 Ti - 710 SC - 710 - 710 ITF.
- Dismount the Toe piece from the Ski or The Interface by completely loosening the mounting screws.

- 2. Dismount manually the SCP on the Toe piece.
- **3.** Take the new SCP and mount it manually under the Toe piece.
- **4.** Tighten the Toe piece on the ski or the Interface (4Nm Torque).

### On Toes SMARTRAK PROLINK/CONTROL/RESPONSE:

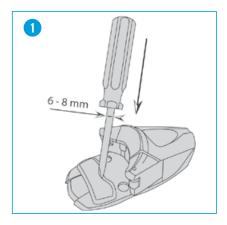
- > 78829401 for SMARTRAK PROLINK + 914
- > 78829501 for SMARTRAK PROLINK & SMARTRAK CONTROL + Z14 Z12 Z10 711
- > 78829601 for SMARTRAK PROLINK & SMARTRAK CONTROL + Z12 Ti Z10 Ti 710 Ti.

- 1. Put the Toe Piece out the Interface.
- 2. Dismount the Toe piece from the Set by completely loosening the mounting screws.
- **3.** Dismount manually the SCP+Stirrup on the Toe piece.
- **4.** Take the new Set SCP+Stirrup and mount it manually under the Toe piece.
- **5.** Tighten the Toe piece on the Stirrup (4Nm Torque).
- 6. Remount the Toe piece on the Interface.

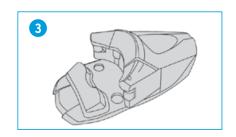
### JUNIOR T 5 & C 5 AND L 7-8-9-10 anti friction plate replacement

- 1. Insert a screwdriver width 6-8 mm at the front of the plate (fig. 1).
- 2. Move over the screwdriver to eject the plate (fig. 2).
- 3. Place the new plate and hand clip it (fig. 3 & 4).

**Caution:** for models with elastic pedal (range 08), check the presence of the elastic block under the pedal (fig. 5).











# Boot



### THERE ARE DIFFERENT STANDARDS: ISO 5355 AND TOURING 9523

### **BOOT STANDARD**

The Alpine boot soles are standardized and bindings are designed accordingly.

The standard norm concerns not only the shape and dimensions as illustrated, but also the friction coefficient of the area of the sole which is in contact with the anti-friction plate on the binding.

### In practical terms:

The boot manufacturers who display one of the following markings: DIN, ISO, ÖN, UNI guarantee that they use standard norms.

In the absence of any of these, check first with the boot manufacturer.

Alpine norm ISO 5355:

These boots are designed for use with a pair of classic skis with alpine bindings and not with a monoski, snowboard or skiboard.

### Touring norm ISO 9523:

These boots are designed for use with a pair of touring bindings, and not with alpine bindings, monoski, snowboard or skiboard.

It is the skier's own responsibility if (s)he chooses to take the additional risks.

When a pair of used boots is brought in, make sure that any worn parts are still within the

Your ski boots must be assembled, adjusted and checked by an approved Salomon technician.



















### **BOOT SOLE LENGTHS**

MODELS	MONDOPOINT SIZES																		
	15	16	17	18	19	20	21	22 22.5	23 23.5	24 24.5	25 25.5	26 26.5	27 27.5	28 28.5	29 29.5	30 30.5	31 31.5	32 32.5	33 33.5
X Lab									275	285	295	305	315	325					
X Max										285	295	305	315	325	335				
X Max Women								265	275	285	295	305	315						
X Pro										286	296	306	316	326	336	356	356	376	
X Pro Women								266	276	286	296	306	316						
Mission											298	307	317	328	339	350	360		
Divine								268	278	288	298	307	317						
Quest Max										285	295	305	315	325	335				
Quest Max BC										285	295	305	315	325	335				
Quest										288	298	308	318	328	338	358	358		
Quest Women								278	278	288	298	308	318						
Quest Access										288	298	308	318	328	338	358	358		
Quest Access Women								278	278	288	298	308	318						
Ghost Max										285	295	305	315	326	336				
SPK								267	277	287	297	307	317	327	337				
X Max LC								265	275	285	295	305	315						
Quest Access T								265	275	285	295	305	315						
X3 60 T				240	240	247	257	267	277	287	295	307							
T3 / Team								266	276	285	296	306							
T2 / Team				240	240	247	259												
Т1	208	208	223	223															
Focus / Focus Women									277	287	297	307	317	327	337	357	357		
Symbio								263	275	284	296	306	317	326	336	345			

### LAST RECAP PER CONCEPT

MODELS	LAST 95 mm	LAST 98 mm	LAST 100 mm	LAST 102 mm	LAST 104 mm	LAST 106 mm	LAST 108 mm			
X Lab										
X Max / X Max Women			360° CUSTOM SHELL							
X Pro / X Pro Women				360° CUS	TOM SHELL					
Mission / Divine										
Quest Max			360° CUSTOM SHELL							
Quest										
Quest Access										
Ghost Max										
SPK										
Focus					AUTO CUSTOM SHELL					

### THE SALOMON MEASURER

### WARNING

Salomon developed a foot measurer that will help you provide better customer service by being able to recommend the size that corresponds to the dimensions (length and width) of the skier's feet.

However, using the measurer can never replace trying on a boot. \\

The volume fit can be measured in two dimensions. The morphology of the foot and physical sensitivity of each individual, according to his/her sports activities and level (comfort/performance ratio), are also determining factors in the choice of size.

The Salomon measurer can be used for all Salomon footwear products (Alpine, X-C, Hiking, In-line skates, Snowboard) and takes into account the two fundamental dimensions of both feet.

- The length (main measurement): it can be read directly on 5 international size scales (US men's/ US women's/ UK / EUR / Mondopoint).
- The width in direct correlation with the length measured. The width measurement is particularly useful to refine the measurement in Mondopoint because it orients the customer towards the .0 sizes (narrow feet) or .5 sizes (wide feet).

### PROCEDURE

- 1. Have your customer take off his/her shoes and make sure that he/ she is wearing appropriate ski socks (size and thickness).
- With your customer standing up, legs parallel and knees slightly bent, make sure his/her heels and medial side of both feet are touching the sides of the measurer.
- 3. Slowly move the length guide (A) until it touches the tip of one foot. IMPORTANT: When you are moving the black transversal length guide, make sure you don't put any pressure on the toes when measuring the foot. All you need to do is to barely touch the end of the longest toe. Too much pressure on the toes could lead to errors in reading by a few millimeters.
- Read the size written vertically where the red line is in the window
   (B).

For Mondopoint, you have to take the width into account in the following manner: if the length of the foot measured is situated in this zone, this means the foot measures between 260 mm and 269 mm. Then, to choose between 26.0 and 26.5, you must look at the width scale (C) (in this case, make it correspond to the maximum foot width with size 26).

A foot that measures 261 mm would fit in size 26.5 (wide foot), whereas a foot that measures 268 mm can fit in size 26.0 (narrow foot) (D).

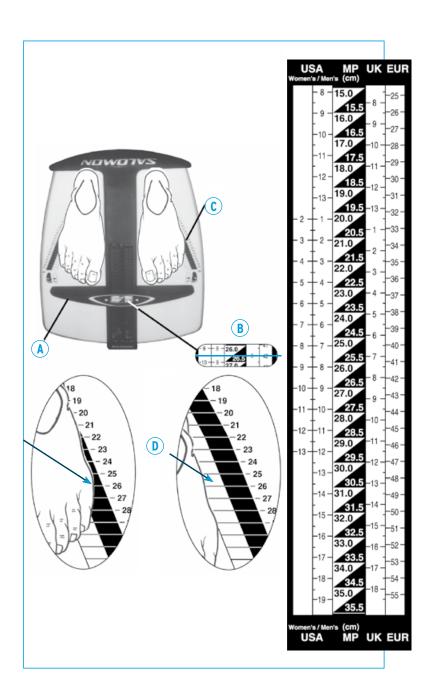
**NOTE:** The increases in Mondopoint sizes represented by two triangles in a rectangle is made to remind you that the boot sole lengths change at the whole sizes, not the half sizes.

Remember that the size indicated on the measurer should be used to help the dealer orient the customer towards the proper size.

The final choice as to the appropriate size should be left to the customer depending on whether he/she prefers a snug fit or not. In principle, a technical skier who appreciates a snug fit will choose the size indicated on the measurer, while a 'recreational' skier will prefer a roomier fit and will choose one size higher.

### MAINTENANCE RECOMMENDATIONS

Use a damp cloth to clean the measurer. It is prohibited to use chemical agents, hot water, pressurized water, gasoline, alcohol, detergents, solvents or aerosols, which could permanently damage the plastic materials and erase the marks.



### THE MEASURER SIDAS SALOMON

This measurer allows measures of:

- Length: real Mondopoint/french sizes/UK sizes/US sizes

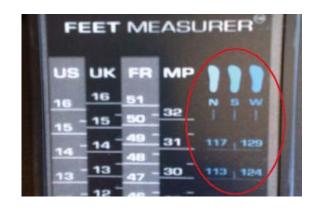


### SIDAS/SALOMON FEET MEASURER



This measurer allows measures of:

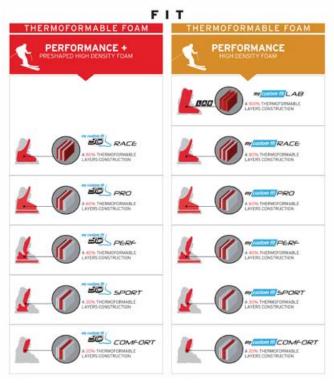
- Length: US Sizes / UK Sizes / French Sizes / real mondopoint
- Width: measured in mm, this value linked to the foot length can give an indication to help for the choice of the boot last:
- N = Narrow feet = Boot last between 95 and 98mm
- > S = Standard feet = Boot last between 98 and 102mm
- > W = Wide feet = Boot last between 102 and 106mm



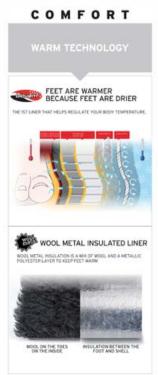
### LINER TECHNOLOGIES

WE NEVER STOP IMPROVING OUR LINERS, THE CHALLENGE IS TO GET THE PILLOW EFFECT IN OUR BOOTS, DAY AFTER DAY.

A VARIETY OF LINER CONSTRUCTIONS FROM **INSTANT COMFORT** TO HIGH END PRECISION AND A MIX OF INNOVATIVE TECHNOLOGIES FOR WARMTH







Every foot deserves to be warm and comfortable.

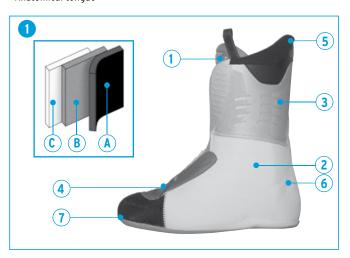
### **TECHNICAL DESCRIPTION**

Three-layer construction (fig.1):

#### A. EXTERNAL LAYER FOR CONTACT WITH THE SHELL

For pressure distribution and thermal insulation

- Polyethylene, closed cell foam
- insulation, warmth, lightness, better fit
- PVC (Thermic + Rental)
- > protection, ruggedness, durability
- Sensifit cuff construction for envelopment of the leg
- Supple exterior for contact with the shell and foot envelopment
- Anatomical tongue



### **B. MIDDLE LAYER**

For foot envelopment and power transmission

- Thermoformable PE (CustomFit) or self-molding PU (Autofit) or pre-formed PE (Thermic Fit)
- suppleness

Transmission foam coming from the Neoprene family for quick reactions.

### C. INTERNAL LAYER FOR FOOT HOLD

For warmth and comfort

- Polyurethane (PU), open cell foam
- ▶ envelopment, breathability, comfort

High density CustomFit foam for superior envelopment.

The materials selected for this unique layering system were chosen to correspond to the demands of the different skier ability levels.

### **SALOMON OFFER DIFFERENT LINER MODELS:**

#### > Mv CustomFit 3D:

- 3D construction vs traditional 2D pattern
- Pre-shaped patented technology
- Thermoformable inserts around ankle & heel
- Solve instant pressure points around ankle & heel
- Offers unmatched foothold

#### My CustomFit World Cup:

Best performance

- Extra low volume Compact Race liner (3 layers).
- Specific World Cup tongue allowing shock absorbing.

### Mv CustomFit Race:

Best performance

- Low volume Compact Race liner (3 layers).
- Riaid sole.

### > My CustomFit Pro:

Maximum customization with 3 layers of thermoformable foam on the ankle heel, meta, tongue sole for perfect comfort and transmission.

### My CustomFit Performance:

Better comfort on the heel, metas & sole without altering performance

Two layers liner: thermoformable foam 80% on all sensitive areas (heel + metas + sole).

### > My CustomFit Sport:

Better customization of the tibia and ankles

- One layer liner: thermoformable foam 70% on original areas.

### My CustomFit Comfort:

Better tibial customization

- One layer liner: thermoformable foam 60% on basic area (tongue).

### > ThermicFit:

Comfort and warmth

- Pre-formed zones protect the tibia and the forefoot.
- A pleasure to slip into due to its construction and materials.

### > Xfit Active:

A comfortable, single layer constructed thermo moldable liner with customizable tongue area for <u>shin comfort and a wide ankle area</u>, positioned at the back of the leg, for <u>heel lock</u>.

### > XFit Advanced:

A comfortable, single layer constructed thermo moldable liner with customizable tongue area for <u>shin comfort</u>. The wide ankle area positioned at the back of the leg and metas <u>covers all the critical foot comfort zones</u>.

### > XFit Comfort:

A comfortable, single layer constructed thermo moldable liner with a customizable tongue area for shin and ankle comfort.

### Riovent:

A breathable liner in a ski boot <u>to keep feet warm all day.</u> This technology helps <u>regulate body temperature</u> thanks to a multilayer construction inspired from apparel.

### > Wool Metal:

Wool metal insulated liner is a mix of wool and a metallic polyeter layer to keep feet warm.

### **WOMEN'S SPECIFIC FEATURES**

Women's liner with anatomic tongues made of highly moldable foams for better shin and instep comfort in sensitive foot zones.

### **WOMEN'S SPECIFIC FEATURES (fig.1)**

- **1. Loop on tongue** Easy to bring.
- 2. Specific tongue
  Autofit and CustomFit foams for better shin and forefoot
- Fur For extra comfortable and warm liners.
- **4. Thermoformable liner** For a better personalisation.
- **5. Quilting anodized PVC** For more warmth.

### Calf adjustment (fig.2 > fig.5):

only one screw turn to enlarge the upper cuff up to 1cm to fit all legs shapes easily and quickly.

Women cuff opening is adjustable. Cuff is delivered with opened position which allows a large volume for calf. It is possible to reduce the calf volume by turning the screw present on the cuff.











### HOW

### STEPS TO FOLLOW FOR A SUCCESSFUL CUSTOM SHELL CUSTOMIZATION

We recommend the use of the Sidas bootfittingoven (fig 1).

Make sure the customer uses only ski socks which go higher than the top of the boot.

- 1. Remove liners from shells.
- 2. Put the shells in the oven with buckles open (fig 2 oven).
- 3. Close the door and start the machine, set the timer for 10 minutes. Warning: Make sure to wear insulated gloves when removingboot shells. Do not allow customers to touch the boot, avoiding possible burns.
- 4. Switch off the oven and remove the shells.
- 5. Put liners back in.
- 6. Help the customer to step in (fig 3).
- 7. Close the boots with minimum tightening (first tooth of the buckle) and make sure the forefoot shell seals stay in the right position.

#### Warning:

Ask your customer to stand still. Avoid bending or walking with warmed shells.

- 8. Make sure the shell has been fully deformed before starting the cooling process. (It takes approximately 2 min).
- **9. Cooling process:** you can find 2 sizes of cool pack, first one for boots sizes 22 to 26.5; the second one or boots sizes 27 to 31.5. thanks to follow the process (**fig 4**).

### 10. Take boots off, the custom Shell boot is ready.

You can use your regular heating tools though they would be less practical than the oven:

- heating elements (fig 5).
- gun (fig 6).
- boiling water (fig 7).

### Warning:

Kaprolene<sup>™</sup> has been created to be deformed by the foot's natural pressure. Be very careful if you need to use a pushing machine on the Kaprolene<sup>™</sup> areas and NEVER push on the side areas where Kaprolene<sup>™</sup> meets the PU shell.















### **3 GENERATIONS OF CUSTOM SHELL**

### 1ST GÉNÉRATION (2008)

#### In-mold Technology

Lateral forefoot zone, base of the shell



### 2<sup>ND</sup> GENERATION 2 (2009)

### **Dual Injection Technology**

Complete forefoot zone + ankle + heel



### **3RD GENERATION (2012)**

### **Dual Injection Technology**

Complete forefoot zone + ankle + heel





### MAXIMISE THE CUSTOMIZABLE AREA

- PERFECT WRAPPING WITHOUT PRESSURE POINT
- · MIXED WITH A SOFTER PU
- · DYNAMIC FIT ENHANCE
- · STEP-IN & STEP-OUT UNMATCHED
- · SAME CUSTOM SHELL PROCESS AS USUAL (10'+4'+6')



360 CS is only available on the MAX and PRO Series products (X MAX / QUEST MAX /GHOST MAX / X PRO)

### **CUSTOM CUFF**

On X Pro models you can also have a Custom Shell process on the Custom cuff.

Process is the same as Custom Shell and Custom Cuff is compatible with cool pack which is covering this area as showed on picture.





In order to increase Custom cuff deformation it's possible to use racing rear spoiler available as spare parts (ref. 5892804 and 4051203).

# LINER FORMATTING PROCEDURE FOR QUEST MAX 130

- Put on client's boots in the ambient temperature of the store, the client must have the sensation of tightness in the shell.
- 2. Define possible painful areas (= painful pressure points)
- 3. Determine & protect those areas with cut foam pads (not included) to the contact of the foot, not the sock.
  - Although be careful to not take off & remove the pads when step in to the socks.
- 4. Put the Thermolight liner without insoles 10 minutes in the custom shell oven at 100 ° C max (preferably already heated)
- At the end of 10 minutes, add insoles (original, custom or orthopedic) in the liner and put them into the shell.
  - Take care to respect the right liner in right shell and vice versa (the liners aren't marked but differentiated only by the shape of the sole!)
  - Advice: make one foot after the other (preserve the liner not yet achieved in the oven)

- Put on the client, taking good care to push the client's heel all the way down to the liner to correctly set the heel to the bottom and thus do not create bends.
- 7. Tighten the lacing system (quick lace)
- 8. Close the shell starting with the forefoot buckle and making good attention to lock the backbone in the action position.
- 9. Provide a clamping adapted, according to the morphology of the worked foot:
  - Strong (2, 3 and 4 teeth) for a wide foot
  - Low (tooth 1,2 & 3) for a thiner foot
- Repeat the same operation for the 2nd liner
- Cool down 15 minutes at room temperature and in a natural standing position, without exaggerating the bending on the front.

**NOTE:** Salomon does not recommend the use of the custom fit machine (or any other similar machine) because it allows not an acceptable and effective Thermolight liner process.

### **CUSTOMFIT**

### **THERMOFORMING**

### THERMOFORMABLE ZONES

### 1. Straight and anatomical tongue

- A thermoformable internal side that provides precision and comfort.
- An external side that is more rigid on the tibia and more supple in the flex area for excellent pressure distribution without hindering flex.

#### 2. Opened ankle area

For ideal morphological adaptation regardless of the size and shape of the bones.

### **NON-THERMOFORMABLE ZONES**

### 3. Asymmetrical and rigid cuff

Distributes pressure for instantaneous transmission of efforts.

### 4. Watertight gusset

### 5. Specific cuts

For women and men to avoid pressure points on the lower calf.

### 6. More supple zones

Allow for easy entry/exit of the boot.

#### 7. Forefoot

The space in front of the metatarsal is not thermoformable, which allows the toes to move freely.

# THERMOFORMING MACHINE

Before using the machine for the first time, return the guarrantee card to your Customer Service Representative.

Follow the instructions for the thermoforming machine closely and pay particular attention to the rules on safety.

To guarantee good thermoforming, we have adapted a thermal sensor to our machines. If something is abnormal during the heating process, the machine will work alternately. If this is the case, contact the customer service in your country. Do not take the machine apart.

This machine is for exclusive use with Salomon CUSTOMFIT liners. Any other use is forbidden.

### PREPARING FOR USE

### (fig. 1)

- Remove the machine from its box and place it on a flat surface. Verify that the voltage used is the same as indicated on the machine.
- 2. Lift the hood.
- 3. Lift the nozzles using the handles provided.
- Close the boot's buckles and slide the boots onto the nozzles. Make sure that the top edge of the boot touches the obturator.

Important: Any insoles used other than the ones received in the boots at the time of purchase should be removed before the heating procedure begins. Re-install them after heating to mold the liners.

 After having read and understood the machine's instructions, especially those on safety, you can now plug the machine in.





### STARTING THE MACHINE

Set the timer for 15 mins.

Warning: For optimal results, it is important that:

- the heating process lasts 15 minutes. Using the machine for more than 15 mins can damage the liner.
- operate the machine with both boots in place.

### **PUTTING THE BOOT ON**

- When thermoforming, you should <u>only use</u> ski socks that have the following <u>characteristics</u>:
  - socks that go higher than the top of the boot.
  - socks with at least 45% wool.

Wearing normal, low-cut socks could cause skin reactions to the heating process.

- 2. Remove the boots from the machine.
- 3. Close the hood.
- 4. The machine is now available for thermoforming another pair of boots.
- 5. Open the boot buckles.
- 6. The boots must be put on immediately following the end of the 15 min heating cycle.
- 7. Close the buckles with medium pressure, not too tight (fig. 2).
- 8. Close the strap more firmly.
- 9. Tap the heel on the floor to make a good impression of the Achilles' heel.
- 10. Wait 10 min in a standing position.
- If you feel any discomfort whatsoever when stepping-in, take your boots off immediately.
- 11. Remove the boots.



### PRACTICAL ADVICE

- Salomon recommends that no CustomFit liner be thermoformed more than three times.
- To optimize the results of the thermoforming process, it is recommended that you make several flex movements during the 10 minute cooling process to simulate the anklebone movements when skiing.
- It is recommended to wait 1/2 hour before skiing with the boots, to allow for complete stabilization of the thermoformed liner.

### Drying with a machine

When drying the CustomFit liners with a drying machine, it is important to respect the drying time recommended by the manufacturer and **that the temperature not exceed 40°C**.

## QUEST MAX BC CUSTOM FIT

- 1. Remove the liner from the shell
- 2. Remove insoles from the liner
- 3. Put the liner in the Custom Shell oven 5 minutes at 100°C maximum (preferably already heated).



- 4. At the end of the 5 minutes, add insoles (original, custom or orthopedic) in the liner and put them into the shell:
  - a. Take care to respect the right liner in right shell and vice versa (liner aren't marked but differentiated only by the shape of the sole.
  - b. Advice: make one foot after the other (preserve the liner not yet achieved in the oven
- 5 . Put the client, taking good care to push the client's heel all the way down to the liner to correctly set the heel to the bottom and thus do not create bends
- 6. Tighten the lacing system Quick Lace

Close the shell starting with the forefoot buckle and making good attention to lock the backbone in the action possible

### RECOMMANDATIONS FOR EXPERIENCED BOOTFITTERS

You can use your regular heating tools though they would be less practical than the oven:

- heating elements (fig 1).
- gun (fig 2).
- · boiling water (fig 3).

#### Warning:

Kaprolene™ has been created to be deformed by the foot's natural pressure. Be very careful if you need to use a pushing machine on the Kaprolene™ areas and NEVER push on the sides areas where Kaprolene™ meets the PU shell.







### **FAQ CUSTOM SHELL**

### Can the shell change forms several times?

As many times as you want! The wider the foot, the more the shell will expand. But it won't come back...

### From what foot width will the Custom Shell be useful?

In size 26, from last 100 or 102 mm, the customer will feel a real difference. The Custom Shell is also useful for thinner feet in order to reposition the foot even if the change is not measurable on the shell.

### What is the maximum width the shell can expand to?

Up to 6 mm with the push of the foot only.

### What is the advantage compared to normal bootfitting?

Here, it is the foot which changes the shell, there is no more risk of misinterpretation, the precision is perfect. Also, this process saves time (30 min. to do everything & the customer leaves with his/her boots) and an easier manipulation (every KOTF can do it).

### Should the custom soles be done before or after?

Mold the soles before. The customer should then step in the warmed Custom Shell with the insoles.

### Should other areas of the shell be changed before or after?

A modification of the metatarsus's area can affect the positioning of the foot. First, the Custom Shell

should be complete. Then, the areas of the toes, ankles, and navicular bone... can be changed as usual, though avoid pushing on the borders of the Custom Shell insert.

### Can I push in the Custom Shell area with my bootfitting machine?

Yes, but it is not recommended. Since the Custom Shell material has not been created to resist to a push that is superior the feet's push, avoid the side areas of the insert.

### Does the plastic retract the same as normal boots when cooled?

Yes, but two times less than normal plastic: approximately 25% after the boots have been taken out (a shell pushed out 4mm could come back to 3 mm).

### What is the benefit of Custom Shell versus the Custom Fit? Should you do it before or after?

The work done on the shell must be done before. This will solve problems and last over time. The molding of the liner must be done after in order to put the finishing touches on the fit.

### How do I know when the plastic is warm enough?

It is the same process as usual when done with a manual test.

### What is the ideal temperature to form the Custom Shell?

80°C at core of the plastic.

### How many years of R&D did it take to develop the Custom Shell technology?

3 years.

### Which is the impact of the new material on the performance of the boot?

There is no effect because the material has the same PU base as a normal boot. The boot has exactly the same behavior on snow. On the other hand, once a boot is fit with the Custom Shell, precision is increased.

### If a customer wants an injected liner, should it be done before or after?

In general, injection is done before work on the shell.

### I usually put normal boots in the oven, how is Custom Shell different?

The normal plastic is going to change very little and comes back to the original position more often. The deformation is thus quite low.

### Why is Custom Shell not used in World Cup?

In World Cup races, one person is dedicated to each racer; everything is done by hand and each pair is adapted to each discipline. Then you could say having Custom Shell is like having your own race technician!

### X LAB MEDIUM



# TECHNICAL DESCRIPTION

### X LAB MEDIUM

Energizer 140 World cup advanced shell technology World cup shell Last 95

Racing kit

- 1. My custom fit World Cup liner
- 2. PU either lower shell and cuff
- 3. Oversized pivot
- 4. Back bone
- 5. World cup claw strap 45mm

### **ADJUSTMENTS AND PERSONALIZATION**

### **WORLD CUP CLAW STRAP**

- Increases cuff fastening: a more powerful fastening for a better envelopment than a traditional strap.
- More reliable: it can't open while flexing the boot (both before and during the curve).

### **BACK BONE**

- Increases the junction between cuff & shell for flex management in a forward position: entering the curve, increasing power on skis.
- Provide support and power to skiers in a rear position while getting out of the curve (rebound effect): the more powerful the rebound the more back support you need to control your skis.

### **OVERSIZE PIVOT**

Oversize pivot is screwed and could be disassembly in order to take out the cuff from the shell for bootfiting.

A specific key is provided with the boot for this operation

For reassembly, the oversize pivot should be tight at 5,5 Nm torque value.

### **CANTING**

Canting could be adjusted by following operations by an approved Salomon technician :

Internal boot sole grinding (fig. 1)

Chassis grinding which should be conform to the ISO 5355 after the operation

### **RACING KIT**

### > Rear spoiler (fig. 2):

The rear spoiler (from the performance kit) increases rear support (with 3 height settings) and forward lean by + 2°.

- Choose the desired height and attach using the screw provided, in the pre-drilled hole.
- **) 3 and 5mm Lifters**: available to be compliant with the ISO 5355 standard after shell grinding

### > Softening the boot (fig. 3):

Two methods exist to soften the boot:

- The reversible method:

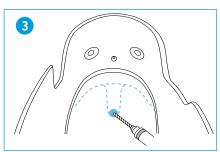
Remove the canting lock screws. Insert the plugs provided in the holes.

### - The non reversible method:

This involves cutting out the marked "V" shape in the lower shell and should be performed by your specialised Salomon dealer.







### **XMAX**



# TECHNICAL DESCRIPTION

### **XMAX 120**

Energyzer 120

- 1. My CustomFit Lab liner
- 2. World Cup claw strap
- 3. Oversized pivot
- 4. Custom Shell

FEATURES ACCORDING TO DIFFERENT MODELS

### **ADJUSTMENTS AND PERSONALIZATION**

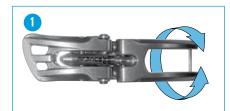
### **ADJUSTABLE MICRO BUCKLE (FIG. 1)**

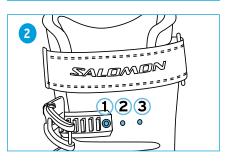
Fine-tune the adjustment by turning the buckle to the desired fit.

### ADJUSTABLE BUCKLE TEETH (fig. 2)

Offers a greater range of lower leg adjustment (+/- 20 mm).

- Loosen the screw with a 3mm Allen wrench.
- Tighten the screw and buckle teeth in the new position.

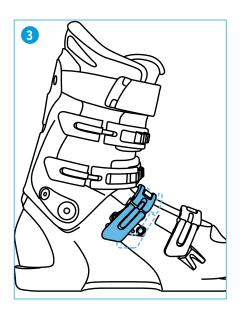




### 3D BUCKLE (fig. 3)

The 3D buckle adjustment allows the position of the instep buckle to be changed for personalised foot hold:

- Unscrew the buckle with a 3 mm Allen wrench.
- Position the buckle over the plastic lug on the shell.
- Tighten in the alternate position.



### **OVERSIZE PIVOT ON XMAX 120 (fig. 4)**

Oversize pivot on XMAX 130 is screwed and could be disassembly in order to take out the cuff from the shell for bootfiting.

A specific key is provided with the boot for this operation.

For reassembly, the oversize pivot should be tight at 5,5 Nm torque value.



#### **CANTING**

Canting could be adjusted by following operations by an approved Salomon technician:

Internal boot sole grinding (fig. 5)

Chassis grinding which should be conform to the ISO 5355 after the operation



- · Chassis grinding on XMax 130 model
- 4mm canting lifters kit available for XMax 120 and 100 models:
- This kit allows an adjustment of +/-0,7° in function of the lifter side mounting (fig. 6)
- Maximum screwing value: 0,8Nm
- Maximum assembly/disassembly: 5 times



### **LIFTERS ON XMAX 120 AND 100**

4mm lifters are removable and should be replaced if excessively worn and/or damaged.

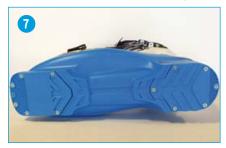
Salomon guarantees the lifters for their disassembling and reassembling, up to a maximum of 5 times subject to strict compliance with the following instructions:

Use only a manual screw driver

Unscrew the 12 screws and remove them from the lifter.

Remove the rear and front sole.

Push them forward towards the front of the shell and rescrew until you feel an increased resistance in the torque to reach a torque value about 0,8Nm maximum as mentioned on the lifters (fig. 7).



### **BACK BONE**

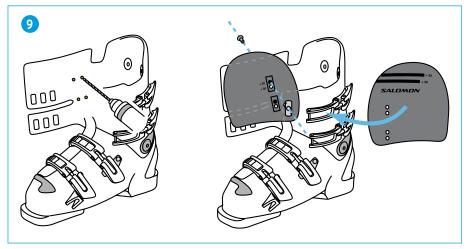
- -Increases the junction between cuff & shell for flex management in a forward position: entering the curve, increasing power on skis.
- -Provide support and power to skiers in a rear position while getting out of the curve (rebound effect): the more powerful the rebound the more back support you need to control your skis.

#### **BACKBONE SCREW ADJUSTMENT**

- Take out the liner
- Drill the hole in the backbone'screw (6.2mm)
- Dismount screw and backbone
- Dismount internal and external canting
- Take out the cuff
- Drill the shell (8.2mm)
- Push in the insert into the shell
- Mount cuff / canting / backbone + screw
- Screwed the tall screw.

### RACING KIT

### > Shin plate (fig. 9):



Used to reinforce the forward support and stiffens the flex. The height and lateral position are adjustable.

- Choose the forward or internal position and use a 5,5 mm drill bit to drill the 1st hole in the cuff where marked (the shin plate is marked by a cross inside the cuff of the boot).
- Choose the desired height and attach the plate using the "T" insert and bolts provided.
- Align the plate correctly and use as a guide to drill the 2nd hole and attach as shown.

> Rear spoiler (fig. 10):
The rear spoiler (from the performance kit) increases rear support (with 3 height settings) and forward lean by + 2°

- Choose the desired height and attach using the screw provided, in the pre-drilled hole.

### Delta H lift (fig. 11):

The 4 mm heel lift (from the performance kit) can be used to improve instep/heel hold and put the skiers weight forward for faster initiation.

- Remove the liner and position the wedge in the hole provided in the rear of the Custom Sole.

### Softening the boot (fig. 12):

Two methods exist to soften the boot:

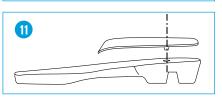
- The reversible method:

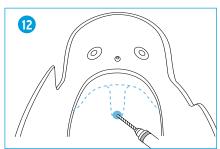
Remove the canting lock screws. Insert the plugs provided in the holes.

### The non reversible method:

This involves cutting out the marked "V" shape in the lower shell and should be performed by your specialised Salomon dealer.







### **XPRO**



## TECHNICAL DESCRIPTION

### X PRO 120

- 1 360° 45mm strap
- 2 4 micro alu buckles
- 3 Articulated sensifit
- 4 360° Custom Shell
- 5 24mm oversized pivot
- 6 Flex adjuster
- 7 My CustomFit 3D Race liner

FEATURES ACCORDING TO DIFFERENT MODELS

### **ADJUSTMENTS AND PERSONALIZATION**

### **CUSTOM SHELL 360° INCLUDING CUFF**

maximized customizable areas. Complete wrapping without pressure points. Dynamic fit enhance.

### **CUSTOMFIT 3D**

Thermoformable inserts around ankle & heel. Solve instant pressure points around ankle & heel.

### **OVERSIZED PIVOT**

Reduces play for precision & direct transmission.

Twinframe technology : the right rigidity where it's needed.

### **FLEX ADJUSTER**

Articulated sensifit (fig. 1 & 2)

### **CANTABLE ALPINE PADS**

Available as spare part, cantable alpine pads are compatible with following models: XPro / Quest Max / Quest / Quest Access / Ghost Max.

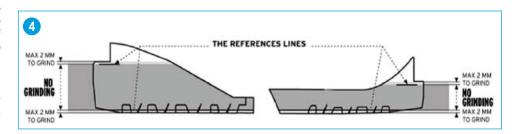
**Warning**: cantable alpine pads are not compliant to ISO 5355 and must be grinding before using to reach the norm. Grinding should be done as well on top and on at the bottom of the alpine pad with the same angle in order to guarantee surfaces parallelism (fig. 3).

Grinding on top and bottom surface should not go over the reference line marked on cantable alpine pads which allow an angle from 0 to 1,5° (fig. 4).









### **MISSION / DIVINE**



# TECHNICAL DESCRIPTION

### MISSION 70

- 1. Sensifit liner wings
- 2. Strap (35 mm)
- 3. Tool free catch adjustment
- 4. Pads
- 5. Micro adjustable buckle
- 6. Adjustable spoiler
- 7. X Fit Fusion Advanced liner

FEATURES ACCORDING TO DIFFERENT MODELS

# ADJUSTMENTS AND PERSONALIZATION

### MICRO ADJUSTABLE BUCKLE (fig. 1)

Fine tune the buckle closure by turning the part that grips the buckle teeth.

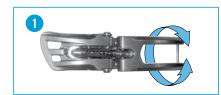
### **REMOVABLE REAR SPOILER**

You remove it by clipping.

### A TOOL FREE CATCHES ADJUSTMENT (fig. 2)

Upper catches are also adjustable, with or without tools, to adapt the volume of the upper cuff to your calves.

- To move upper catches (a), turn them 90°, move them laterally (+ 15mm), then place them back to their horizontal position.
- To move lower catches (b), loosen the screw with a 3mm Allen wrench, position the catches in the desired position (+/- 20mm) and tighten the screw.





### **QUEST MAX**



## TECHNICAL DESCRIPTION

### QUEST MAX 130

- 1. Lacing system in option
- 2. Waterproof gusset
- 3. Magnesium buckles
- 4. 360° Custom Shell
- 5. 24 mm oversized pivot
- 6. Backbone release
- 7. My CustomFit Race liner + 2 loops

FEATURES ACCORDING TO DIFFERENT MODELS

# ADJUSTMENTS AND PERSONALIZATION

### **OVERSIZE PIVOT**

Oversize pivot on QUEST MAX 130 is screwed and could be disassembly in order to take out the cuff from the shell for bootfiting. A specific key is provided with the boot for this operation. For reassembly, the oversize pivot should be tight at 5,5 Nm torque value.

### **CANTING**

The oversize pivot doesn't stand for canting adjustment. Canting could be adjusted by internal boot sole grinding by an approuved Salomon technician.



### **INTERCHANGABLE SOLE PADS**

Possibility to change from a DIN (Alpine) to walking sole pads (please read the concerned chapter).

### QUEST



### **TECHNICAL DESCRIPTION**

### QUEST 120

Energizer 120

- 1- Cushioning system (tongue and heel pad)
- 2- Forward pressure plate
- 3- Last 100
- 4- Extended rubber sole
- 5- Double dismantable canting
- 6- Ride & Hike body postioning
- 7- Magnesium backbone
- 8- My CustomFit Pro liner

FEATURES ACCORDING TO DIFFERENT MODELS

### **ADJUSTMENTS AND PERSONALIZATION**

### **WOOL METAL LINER**

The Wool metal insulation is a mix of wool and metallic polyester layer to keep your feet warmth: wool on toe inside; insulation between foot and shell.

**RIDE AND HIKE TECHNOLOGY**: new body positioning. Forward lean: better balance. Cuff opening: wide cuff opening on the back when walking; natural leg position.

### **QUEST ACCESS**



### **TECHNICAL DESCRIPTION**

### QUEST ACCESS 80

- 1. 35 mm strap
- 2. Removable pads
- 3. Single canting
- 4. backbone
- 5. Micro alu buckle + ratchet
- 6. Wool metal + My Custom Fit sport liner

FEATURES ACCORDING TO DIFFERENT MODELS

### **ADJUSTMENTS AND PERSONALIZATION**

### **RATCHET BUCKLE**

- Micrometric adjustment
- wider range of adjustment 45 mm compared to classic alu
- Maximum conveniency for adjustment
- Easy to "pump" to close the cuff

# A UNIQUE & PATENTED RIDE & HIKE TECHNOLOGY







THE MAGNESIUM BACKBONE, TECHNOLOGY FROM THE X3 LAB, PROVIDES STRONG BACK SUPPORT, POWER TRANSMISSION & PROGRESSIVE FORWARD FLEX MANAGEMENT WHEN SKIING DOWN,

ALPINE FORWARD FLEX MANAGEMENT





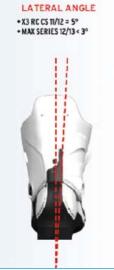


THE SPECIFIC INNER SHELL (V CUT-OUT) GUARANTEES A WIDE CUFF OPENING WHEN HIKING OR WALKING & COMBINED WITH THE INSIDE PART OF THE MAGNESIUM BACKBONE, CONTRIBUTE TO BACK SUPPORT & PROGRESSIVE FORWARD FLEX.

### THE MAX SERIES | FOOT POSITIONING

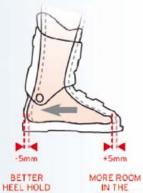


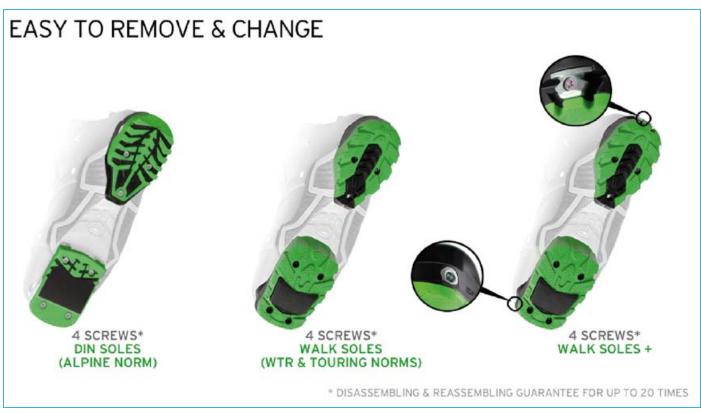
### LATERAL POSITION



### FOOT POSITIONING

BETTER HEEL HOLD FOR PRECISION AND MORE ROOM IN THE TOE BOX FOR BETTER FEELING





CANTABLE ALPINE PADS: compatible with following models: X Pro / X Max / Ghost Max / Quest / Quest Access.

### **WALKING SOLE PADS**

These walking sole pads are intended to be used only with the following bindings:

- Touring bindings compliant with ISO 13992 standard
- « WTR technology » labeled alpine bindings compliant with ISO 9462 standard

Any use with other bindings could cause the ski-binding-boot system to be faulty, which would increase the risk of serious injury while skiing.

These walking soles are removable and should be replaced if excessively worn and/or damaged.

Salomon guarantees the soles for their disassembling and reassembling,



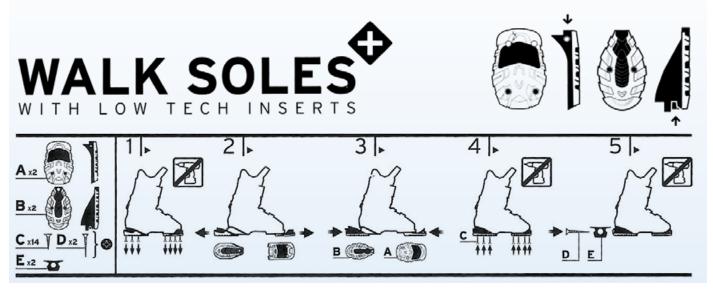
up to a maximum of 5 times subject to strict compliance with the following instructions:

Use only a manual screw driver.

Unscrew the 7 screws and remove them from the sole.

Remove the rear and front sole.

Push them forward towards the front of the shell and rescrew until you feel an increased resistance in the torque to reach a torque value about 1,5Nm.



# Boot | BOOT CONCEPTS

### **REAR SPOILER (fig. 1)**

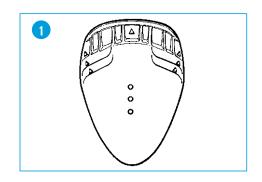
The rear spoiler (from the performance kit) inscreases rear support (with 3 height settings) and forward lean by +2°.Choose the desired height and attach using the screw provided in the pre-drilled hole.

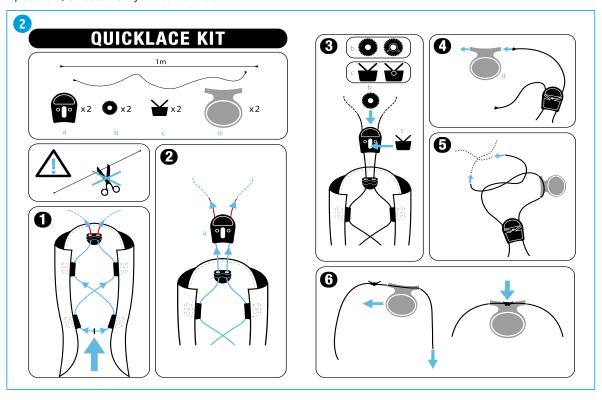
### **WATERPROOF GUSSET**

to guarantee a perfect waterproofness.

### QUICKLACE KIT (fig. 2)

1.Quicklace kit / 2. Strap dismounting for replacement / 3. Cover dismounting for replacement / 4. Reassembing the new cover + fuel racks / 5. Backbone replacement / 6. Reassembling the rear Perf hold





### **WOMEN SPECIFICITIES**

PP Women cuff ; Women light back calf ; specific liner : my Customfit Comfort liner.

### **QUEST MAX BC 120**

For a better walk position, place the upper buckle in the first position (fig. 3)



# PROCESS TO CHANGE FOLLOWING QUEST PIECES: STRAP / COVER / BACK BONE

### STRAP DISASSEMBLY FOR REPLACEMENT

- 1. Dismount the rear Perf hold to access rivets (fig. 1)
- 2. Drilling rivets with a Ø 5.2 drill (fig. 2)
- 3. Assembling new strap + plate with inserts and screws M4 (fig. 3)

### **COVER DISMOUNTING FOR REPLACEMENT**

- 1. Drilling toe buckle teeth rivets with  $\emptyset$  5.2 drill (fig. 4)
- 2. Drilling cover rivets with Ø 5.2 drill (fig. 5)

### REASSEMBLING THE NEW COVER

### + FUEL RACKS

1. Drilling of the buckle teeth shell + cover  $\emptyset$  5.4 to put the M4 insert (fig. 6)

### FIXING THE COVER AND THE BUCKLE TEETH WITH INSERT + M4 SCREW

1. The insert must be flush with buckle teeth mounted on covert (fig. 7)

### MOUNTING OF THE COVER BUCKLE TEETH WITH M4 SCREWS (fig. 8)





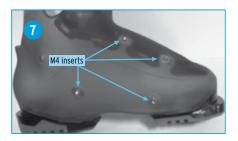














# Boot | BOOT CONCEPTS

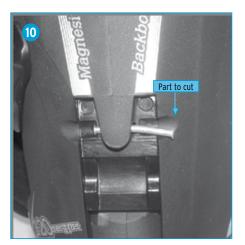
### **BACKBONE REPLACEMENT**

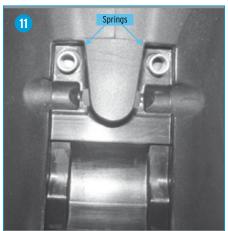
### Mounting kit (fig. 9)

- 1. Remove the damaged axis by cutting off the reveting part (fig. 10)
- 2. Place the 2 springs in their dwelling (fig. 11)
- 3. Do not forget to put the steel Pin before screw and nut (fig. 12)
- 4. Mounting of the new backbone (fig. 13)

### **REASSEMBLING THE REAR PERF HOLD (fig. 14)**













### **SPK**



### **TECHNICAL DESCRIPTION**

### **SPK 100**

- 1. Loop to tongue 2. Quicklace
- 3. Wide strap
- 4. SCS (Salomon cushioning system)
- 5. Walkable sole6. PU lower shell and PP cuff
- 7. Micro alu overshaped buckles
- 8. Extra padded spoiler
- 9. My CF PRO liner with faux fur

FEATURES ACCORDING TO DIFFERENT MODELS

### **GHOST**



### **TECHNICAL DESCRIPTION**

### GHOST 120

- 1. Loop to tongue
- 2. Quicklace
- 3. Energyzed strap 55 mm
- 4. Custom shell
- 5. Insole rubber grip
- 6. Absorbing footboard
- 7. PU lower shell
- 8. Double canting
- 9. Backbone
- 10. Micro alu overshape buckles11. My Custom Fit Performance liner

FEATURES ACCORDING TO DIFFERENT MODELS

### **FOCUS**



# TECHNICAL DESCRIPTION

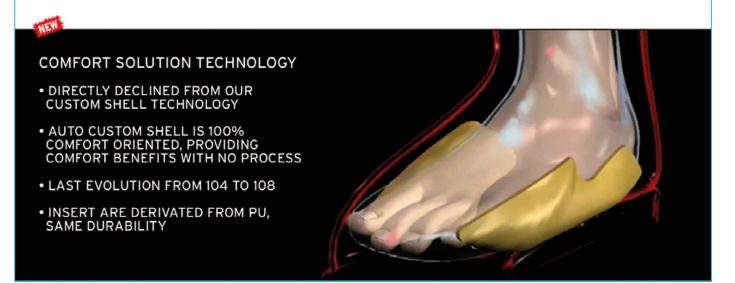
### FOCUS

- 1. Oversize tool free catch
- 2. Articulated sensift for step-in
- 3. 2 buckle fastening
- 4. Auto Custom Shell technology
- 5. Rental plate for barcode
- 6. My AutoCustomShel liner + Biovent

#### FEATURES ACCORDING TO DIFFERENT MODELS

- PU materials to prevent scratches
- Aluminium buckles for lasting
- Liner: mesh tested and chosen to ensure long lasting comfort. Biovent: less time needed to dry liner on the shelves
- Soles : build to last and to avoid folding with textured effect (Salomon patented)

# AUTO CUSTOM SHELL TECHNOLOGY



### SYMBIO



# TECHNICAL DESCRIPTION

### SYMBIO 440

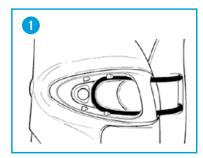
- 1. Rental thermic liner.
- 2. Plastic buckles.
- 3. Replaceable toe and heel pads.
- 4. PU Shell and PP cuff.
- 5. Bar code integrated to the liner.

FEATURES ACCORDING TO DIFFERENT MODELS

### **ADJUSTMENTS AND PERSONALIZATION**

### LOWER LEG ADJUSTMENT

It is possible to change the lower leg adjustment according to the morphology of the skier's lower leg.



### Adjusting the lower leg cable

Place the lower leg cable in the desired setting of the buckle teeth on the medial side of the boot (fig. 1).

Longer or shorter cables are available from the spare parts catalog to adapt to all shapes and sizes.

### REPLACING THE LOWER LEG BUCKLE TOOTH INSERT

- 1. Remove the liner and open the cuff completely.
- 2. Drill the rivet inside the shell.

**REPAIRS** 

- 3. Remove the damaged buckle tooth insert and its rivet.
- 4. Put a new buckle tooth insert in place and proceed as follows:

### > Using a T-nut

- 1. Place the threaded insert in the rivet hole on the inside of the boot.
- Put the buckle into place and install the screw tightly. The prongs on the threaded insert should be completely imbedded into the cuff material.
- 3. Loosen the screw.
- 4. Put the washer into place. This will prevent the tip of the screw from going too far.
- 5. Tighten completely.

### > Using a Rivet

Use a rivet on the outside and a washer inside and proceed with riveting.

### REPLACING THE BUCKLE AND/OR FOREFOOT BUCKLE TEETH

- 1. Remove the liner.
- 2. Drill the rivets in the buckle or the damaged buckle teeth.
- 3. Remove the damaged buckle or the buckle teeth and the rivet. Save the washer.
- 4. Put in a new buckle or buckle teeth and attach with a rivet or T-nut.

### Using a rivet

Use a new rivet and the original washer and proceed with riveting.

### > Using a T-nut

Put the threaded insert into the rivet hole from the inside of the boot. Put the buckle in place and tighten completely. The prongs on the threaded insert should be completely imbedded in the material.

### TO REMOVE THE LINER

Turn the clip on the inside of the liner 1/4 turn with a screwdriver.

# Boot FOOT ANATOMY AND FIT

### **NOTIONS OF ANATOMY**

A basic knowledge of anatomy of the foot is essential if you are going to understand and solve your customers' problems and needs since each foot is unique.

### 1. THE BONES OF THE FOOT

#### (fig. 1)

### **A. POSTERIOR TARSUS**

- 1. Calcaneus
- 2. Talus (Astragalus)
- 3. Trochlear surface

### **B. ANTERIOR TARSUS**

- 4. Navicular bone (Tarsal Scaphoid)
- 5. Cuboid bone
- 6. 3 cuneiform bones

#### **C. METATARSUS**

7. 5 metatarsal bones

#### D. TOES

8. 14 phalanges

### 2. DISTORTION OF FOOT WHEN WEIGHTED

#### (fig. 2)

When the foot is weighted (standing position), it can change in size:

- lengthwise, it can get 5 mm longer,
- widthwise, it can get 12 mm wider.

When the foot is flexed, we notice:

- the circumference of the ankle increases about 2 mm,
- the axis between the talus (astragalus) and calcaneus becomes off-centered which increases the surface area at the base of the foot.

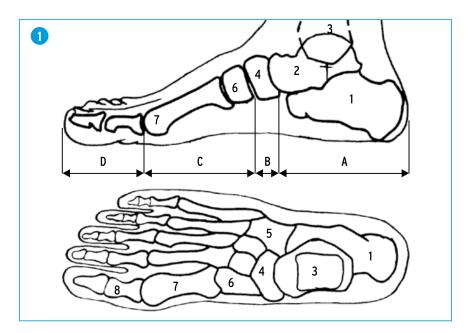
Therefore, to be accurate, feet should be measured when the person is standing with his/her weight distributed on both feet and knees slightly flexed.

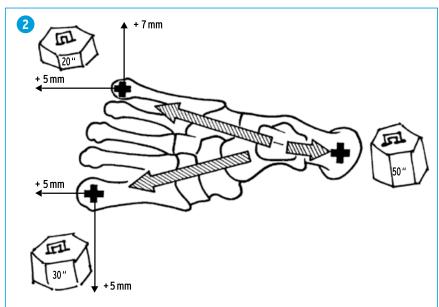
### 3. TYPES OF LEGS

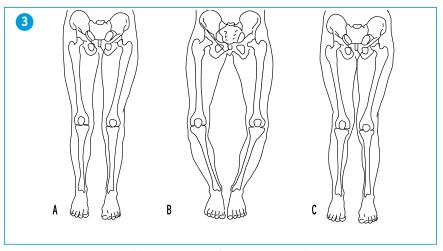
### (fig. 3)

Some people naturally have varus or valgus knees. The boot cuff follows the profile of the leg. Therefore, the boot sole forms an angle with the ground (= the ski is not flat).

The ski boots can be adapted to the shape of the leg by canting the cuff. The canting adjustment by canting the cuff allows the boot to follow the morphology of the leg to keep skis flat.







A: Normal knees.

B: Varus knees.

C: Valgus knees.

# 4. TYPES OF FEET

### (fig. 4)

A deeper analysis of the customer's feet is necessary to observe the possible deformations that can become problem areas. Salomon has parts at your disposal that will help you to easily adapt the boots to these deformations.

## > High arches:

The skier needs an arch support that can relieve pressure on 'overloaded' areas.

Arch supports can be attached to the footboards (fig. A).

# > Supinated or pronated feet:

This is the deviation of the foot's vertical axis towards the medial or lateral side, which can lead to problems in the areas of the anklebones, navicular bone or talus. To adapt to this deviation of the foot, it is possible to place wedges directly on the footboard.

However, this wedge should only be used if the lateral articulation under the ankle bone is mobile (fig. B).

### > High instep:

You can grind the footboard (Falcon and X Wave) to increase the volume. This sole is realized in grindable PU foam. To increase the volume of the boot or to change the position of the foot.

Caution, grind on the top surface only.

Grinding the base will effect the interface with the Chassis. A depth gauge is marked front and back for even grinding (fig. C).

# > Low instep:

The height and inclination of the footboard can be modified by adding:

- heel lifts (fig. D).

# 5. RECOMMENDATIONS

The modifications that can be made on the Salomon boots should be considered as the 'final touch' of personalization.

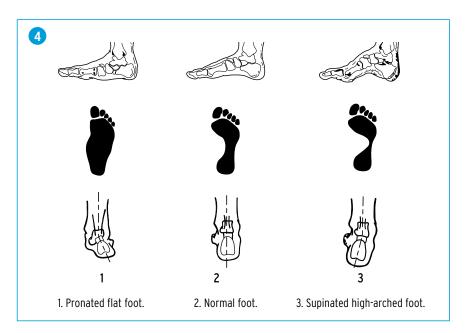
Before undertaking this type of operation, it is important to observe certain basic rules:

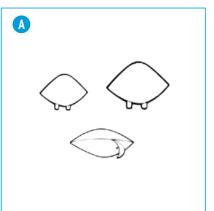
- Always proceed step by step, starting with temporary measures before going on to permanent changes.
- If you decide to proceed with the permanent modifications as a last resort, they are entirely your responsibility.

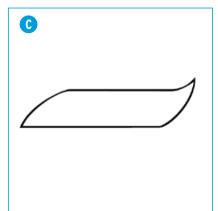
They require the proper tools and should be undertaken only for big problems and by experienced specialists. For example:

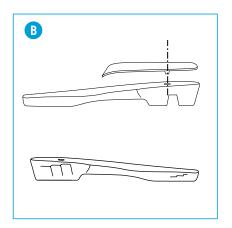
- Stretching the shell.
- Grinding the liner (not recommended for manufactured liners).
- Grinding the shell.

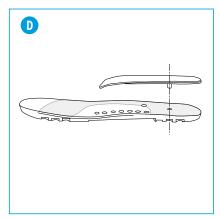
**Important:** Boots whose lower shell material is not made of Polyurethane (PU), should not be heated (risk of damaging the material).











# Boot | FOOT ANATOMY AND FIT

# **PROBLEMS**

# CAUSES SOLUTIONS

# FIRST METATARSAL PRESSURE (medial side of the forefoot)

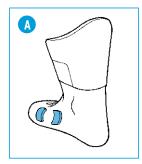


Shell too narrow. Prominent first metatarsal.

### Solutions all products:

- Stick adhesive foam around the first metatarsal on the medial side of the liner (fig. A).
- Stretch the shell locally with a heat gun\* and other tools designed for this purpose (such as SIDAS) (except Symbio and Rear Entry).

**X Wave, Ellipse, Performa:** Be careful not to overheat the Sensifit or instep gusset of the boot during the heating operation (there is a risk of deforming it due to how thin this part is).



# FIFTH METATARSAL PRESSURE (lateral side of the forefoot)



Shell (or liner) too narrow. Prominent fifth metatarsal.

### Solutions all products:

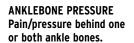
- > Remove the insole (increases volume).
- Stick adhesive foam around the painful area to dissipate the pressure (fig. B).
- > Stretch the shell locally using a heat gun\* and other tools designed for this purpose (such as SIDAS) (except Symbio and Rear Entry).

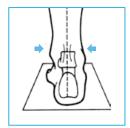


В

### X Wave, Performa:

Be careful not to overheat the Sensifit or the instep gusset of the boot during the heating operation (there is a risk of deforming it due to how thin this part is).





Prominent medial and lateral ankle bones. Heel shape.

### Solutions for Falcon, X Wave, Performa:

Special precautions are required when stretching the shell:

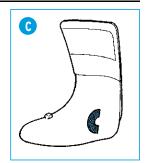
- > Heat\* the inside and outside of the cuff and lower shell simultaneously (so that both will be at the same temperature despite their different thicknesses and layers).
- Place the stretching device on the inside, close the boot during the stretching operation, and proceed with very small successive degrees of stretching to avoid creating a space between the cuff and the shell.



Be careful not to heat the metal parts (there is a risk of damaging the plastic).

# Solutions for Rear-Entry models:

- > Remove the insole to increase the volume.
- Stick a C-shaped foam pad in the area around the ankle bones (on the liner) (fig. C).
- Remove some foam from the liner in the area around the ankle hones.
- > Add shims to blue heel envelopment plate.



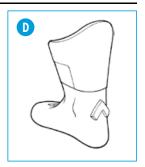
### **HEEL PRESSURE**



Lack of room in the boot. Prominent calcaneus (exostosis).

# Solutions all products:

- Stick a chevron (foam pad in the form of an inverted V) above the calcaneus to push the foot forward in the shell and reduce the pressure on the heel (fig. D).
- It is possible to remove some PU from both sides of the Achilles tendon on the cuff (grinding) and/or on the lower shell (Falcon, X Wave, Ellipse and Performa).



\*Caution: The boots whose lower shells aren't made of Polyurethane (PU) must not be stretched with heat (there is a risk of damaging the material).

# **PROBLEMS**

# CAUSES

# **SOLUTIONS**

### **HEEL MOVEMENT**



Very narrow heel. Achilles tendon axis very hollow. Thin ankle.

# ${\bf Solutions\ all\ products:}$

- > Stick a chevron above the calcaneus on the liner (fig. E).
- > Stick an L-shaped piece of foam under each ankle bone (for better grip).
- Add a shim to the top of the liner (forward position that pushes the foot backward in the boot and increases pressure on the heel).
- > Use a thicker insole.
- > Add a shim under the footboard.
- > Add heel lifts (fig. F).





# INSULATION AND NUMBNESS Cold, numb feet.



Poor blood circulation caused by pressure on the blood vessels/ nerves. Poor foothold distribution (especially with

# Solutions all products:

- Make sure the adjustments are not too tight.
- > Remove the insoles from the liners.
- Add a small arch support and varus wedge (or a shim on the inside of the heel under the footboard from the performance series).
- > Grind the footboard.

# CRAMPS Muscle pain under the arch, in the calf, pressure points, irritations.



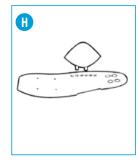
Pronounced arch, high instep or flat foot. Pronated foot. Thick lower leg.

children).

## Solutions all products (fig. H):

- > Add or remove the arch support.
- > Add an insole or propose a custom insole.
- > Remove all shims under the footboard.
- Modify the angle of the forward lean to distribute the skier's weight differently.
- > Grind the footboard.
- > Grinding the Custom Sole:

To increase the volume of the boot or to change the position of the foot. Caution, grind on the top surface only. Grinding the base will affect the interface with the Chassis. A depth gauge is marked front and back for even grinding.

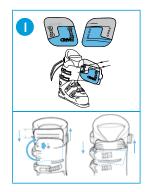


SHIN BITE

Lack of pressure distribution.

# Falcon (fig. I):

Add a shin wedge on the cuff (choose the mounting position according to the height of the skier).





NOTES	
	-
	•••

# Helmet-Pole



# Helmet / HELMET ADJUSTEMENT

The helmet must be properly positioned on, and adjusted to the user's head to ensure maximum comfort and protection.

A properly positioned helmet must not be too far forward or backwards on the user's head; the chin strap must always be properly adjusted and in the closed position.

In case of children's helmets, an adult should always check that the helmet is properly secured.

# **HEAD MEASURER**

### > Warning:

Salomon has developed a head measurer that will help you to better serve your customer by being able to recommend the helmet size that corresponds to the circumference of his/her head.

This measurer can be used for all Salomon Alpine and In Line Skate helmets.

Please remember that the size given by the measurer (centimeters) should be used only as an indication to help you orient your customer toward the proper size. The final selection of the appropriate size should be left to the customer.

Using the measurer should never replace trying on the helmet.

The helmet is a safety product: it must be chosen in the size that is suitable to its user and be properly positioned on his/her head (the chin strap adjusted in the closed position) to ensure optimum protection, comfort and hold.

### > Recommendations for use:

- Loosen the roller (A) to be able to place the measurer easily on the head.
- Position the measurer on the head according to fig. n° 1, touching the brow (B) and the occipital bone (C).

Important: Make sure the headband (D) does not compress the ears, which would affect the measurement.

- Hold the measurer in this position and turn the roller (A) (rotate it clockwise).
- Turn the roller until it disengages (fig. 2).
- Carefully remove the measurer from the head, pulling the rear upward, while maintaining pressure on the nose (fig. 3).
- Read the measurement on the graduated scale (E) in the window (fig. 4).
- Choose the helmet according to the size given by the measurer.
- Try the helmet on. Switch sizes if there is a problem with the fit.
   Salomon has provided for stickers that can be put on the head measurer for a better understanding of how to use the roller.

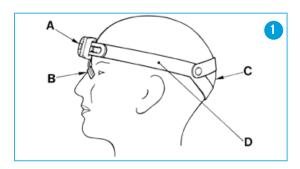
### Maintenance recommendations:

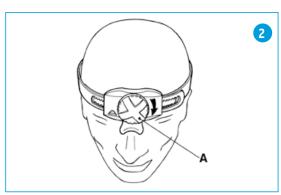
To clean the measurer, you can use a cloth with soap and water.

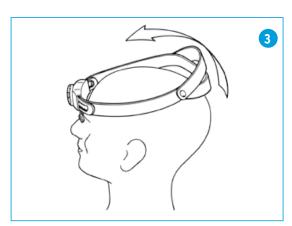
It is prohibited to use chemical products, hot water or pressurized water, gasoline, alcohol, detergents, solvents or aerosols that could permanently damage the plastic materials and erase the markings.

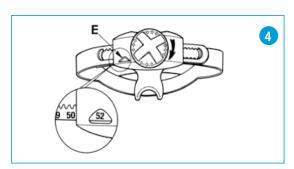
### Warning:

Salomon does not cover any damage to the head measurer that is a result of transportation, storage or not abiding by the instructions for use or maintenance.









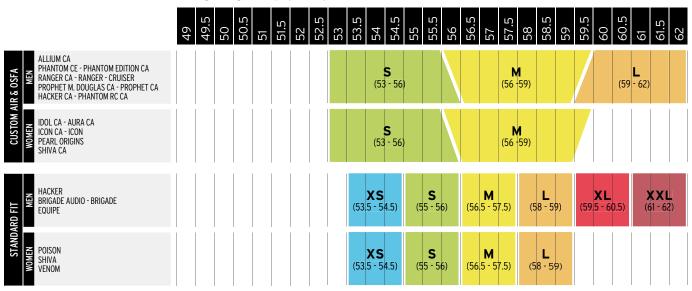
# **NEW SIZING CHART**

# SIMPLE INTUITIVE SALOMON EXPERTISE

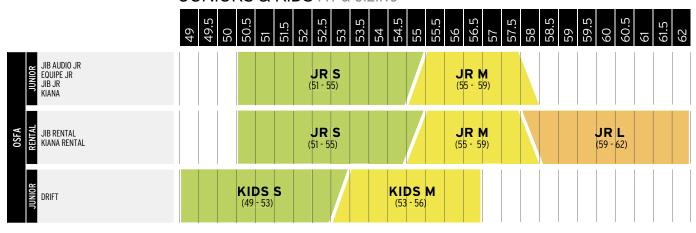
The helmet is a safety product.

To ensure an optimal protection, comfort and head hold, the helmet must be chosen in the user convenient size. To choose the good size, it is necessary to measure the cranial perimeter of the head in cm (from the forehead to the most prominent back part of the head).

# **ADULTS FIT & SIZING**



# JUNIORS & KIDS FIT & SIZING



# Helmet / MY PERFECT FIT



n (A) Impact test (B) Penetration test (C) Roll of test (D) Dynamic fastening device test (E) Covered areas measurement (F) Visibility measurement Salomon channelled all its experience for your protection and pleasure but dont lose your head!

Our helmets combine our recognized profession-nalism and pure design to create protection for the senses.

Our comprehensive range meets the best safety standards and uses the unique Advanced Fit Technology design for your comfort and performance. Be smart and protect your head in style.



Helmets don't offer absolute protection, so ride within your limits and take care.

# INSTRUCTIONS FOR USE AND MAINTENANCE

- IMPORTANT: the helmet must always be fastened on the head (chin strap buckled under the chin).
- Check the adjustment and the condition of your helmet before each use.
- Always take care of your helmet, even when not using it. Store it away from any heat source and sunlight (since prolonged exposure to the sun weakens all plastic materials, it is recommended to replace your helmet at least every 3 years). Let it dry in a ventilated area.
- For cleaning the outside surface of the skull cap, use soap and water only.
- Do not use any type of gasoline products, solvents or any other chemical substances.
- Do not modify the helmet in any way. Do not varnish it or add any coloring products.
- After receiving an impact, the helmet may be damaged on the point that it is no longer adequate to protect the wearer's head against further impacts. Even if the damage is not visible, it is necessary to replace the helmet.

# **STANDARDS**

# All Salomon helmets respect the following standards:

- > CE-EN 1077 (helmets for alpine skiers and for snowboarders\*)
- > ASTM F2040 (helmets for recreational\* snow sports).
- \* Non motorized winter sports





Main tests of norms (fig. 1):

# SHELL CONSTRUCTION

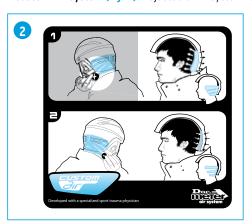
In order to meet consumer's needs in terms of safety, head hold and comfort Salomon uses 4 construction technologies. They provide performance in terms of resistance, absorption, deflecting impact and resisting penetration.

- **Hybrid construction:** Combination of in-mold lower shell for reduced weight, with injected upper shell for more durability and to accommodate mechanical ventilation devices.
- In Mold construction: an external PC layer molded together with the EPS cap to provide the best ratio lightness / resistance to the helmet. This technology is commonly used by every helmet manufacturer.
- > Twinshell construction: a lightweight in-mold shell mounted on a durable injected basis offering a brand new airflow ventilation system.
- > Injected construction: an external cap made of ABS combined with an internal cap made of EPS.

# **MY PERFECT FIT**

**Fit foams:** All our models are benefiting from specific Fit foams disposed on the anatomical areas to increase head comfort.

> Custom Air System (fig. 2): Adjustable Air system for a perfect fit.

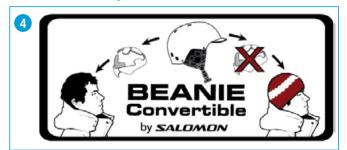


### > OSFA (fig. 3):

With this adjustment system the helmet is covering several sizes:

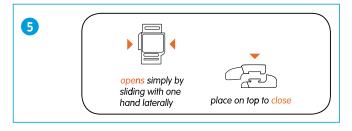


# > Beanie convertible (fig. 4):



# > Convenience (fig. 5):

Magnetic buckle



# **VENTILATION**



THERMO CONTROL SYSTEM
ALL THE BEST TEMPERATURE REGULATION
TECHNOLOGIES AVAILABLE ON THE MARKET



ACTIVE VENTILATION
ALLOWS YOU TO MODIFY THE AMOUNT
OF AIRFLOW AND HEAT EXHAUST



TWINSHELL CONCEPT

CONNECTS THE LOWER-INJECTED SHELL VENTS

AND OVERSIZED INTERNAL EPS CHANNELS TO

INCREASE AIRFLOW IN ALL CONDITIONS.



AIRFLOW CONCEPT
STRATEGICALLY PLACED VENTS MAXIMIZES
AIRFLOW AND HEAT EXHAUSTION
IN ALL CONDITIONS

# **SOUND SYSTEMS**

### > Warning:

# For use with Salomon snowsports helmets only.



Headphones used in snowsports may cause the skier/rider to not hear other skiers/riders. This can lead to an accident and possible injury or death. Always stay in control. Skiers/Riders downhill from you always have priority, so it's your priority to make sure you avoid them. Headphones will also restrict your ability to hear what your edge/edges are doing on the snow and may distract you. They may distract you from focusing on skiing or riding safely which may lead to less control.

### > Care and handling:

The earpad sound system is built to handle cold, snowy conditions. However, this system is not waterproof. Do not submerge the Earpad or cord in water or any other liquid. Do not attempt to clean or to disinfect your helmet with the earpad sound system installed.

# **CHINGUARD INSTRUCTIONS**



# CHOOSING YOUR POLE SIZE



- Turn the pole upside down with the tip pointing up.
- Hold the pole right under the basket.
- Your arm will form a right angle (90°) when you have the ideal size.

# MAINTENANCE RECOMMENDATIONS

Use a cloth with soap and water to clean the poles. It is prohibited to use chemicals, hot water or pressurized water, gasoline, alcohol, detergents, solvents or aerosols that can permanently damage the plastic materials and erase the cosmetics.

# **RENTAL POLES**

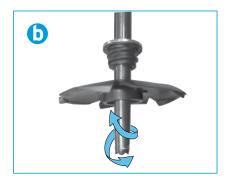
- Salomon designed specific poles for rental adapted to a professional and intense use.
- This warranty will not apply for damages resulting of rental use of poles that was not designed specifically for rental.

# MOUNTING THE REPLACEABLE BASKETS

Salomon has made 1 type of replaceable baskets available to you:

- a Mounting: at the same time, screw the basket on and push it towards the handle of the pole.
  - Removing: at the same time, unscrew the basket and pull it toward the tip of the pole.
- **b** Screw the basket on completely until you hear four clicks (wear gloves as a precaution).





# **POLES TECHNICAL FEATURES**

- Aluminium range
- Salomon know-how in aluminium is proven with bindings, ILS and Mavic wheels.
- According to this experience, we defined three levels of strength
  - Aluminium Technology
- AI \*\*\*\*

40% stronger

- Aluminium Technology
- $AI \star \star \star$

15% stronger

- Aluminium Technology
- AI \*\*

Competitive strength/price ratio

- Composite range
- We do our pole's shafts the same way that golf companies do their own golf shafts.
- We defined three levels of Carbon grade:
  - Carbon Technology

    by Salomon
- C \*\*\*\*

80% of Carbon

- Carbon Technology
   by Salomon
- C \*\*\*
- 40% of Carbon

- Carbon Technology
   by Salomon
- C \*\*
- 15% of Carbon

# **HOW TO CUT AND GLUE POLES**

**1.** Take off the Grip by soaking it in boiling water and then, simply removing it by hand.





2. Put some tape exactly over the cutting zone.



**3.** Cut the shaft exactly where you need by using a saw, and cutting directly on the tape. This will enable the delamination of the carbon fiber.



**4.** Remove the tape and use sand paper to clean remaining dust of carbon.



**5.** Warm up some thermo glue by using a heatgun. And apply warm glue directly on the top of the shaft.





**6.** Warm up again thermo glue on the shaft with the heat-gun. Place directly the grip on the shaft, taking care that it's weel positioned compared to the basket.





# **POLES SIZING CHART**

SKIER'S (cm)         POLE LENGTH (cm)           195         165         175           190         160         170           185         155         165           180         150         160           175         145         155           170         140         150           165         135         145           160         130         140           155         125         135           150         120         130           145         115         125           140         110         120           135         105         115           130         100         110           125         95         105           120         90         100           115         85         95           110         80         90           105         75         85           100         70         80					
195       165       175         190       160       170         185       155       165         180       150       160         175       145       155         170       140       150         165       135       145         160       130       140         155       125       135         150       120       130         145       115       125         140       110       120         135       105       115         130       100       110         125       95       105         120       90       100         115       85       95         110       80       90         105       75       85					
190       160       170         185       155       165         180       150       160         175       145       155         170       140       150         165       135       145         160       130       140         155       125       135         150       120       130         145       115       125         140       110       120         135       105       115         130       100       110         125       95       105         120       90       100         115       85       95         110       80       90         105       75       85		CLASSIC	SKATING		
185       155       165         180       150       160         175       145       155         170       140       150         165       135       145         160       130       140         155       125       135         150       120       130         145       115       125         140       110       120         135       105       115         130       100       110         125       95       105         120       90       100         115       85       95         110       80       90         105       75       85	195	165	175		
180       150       160         175       145       155         170       140       150         165       135       145         160       130       140         155       125       135         150       120       130         145       115       125         140       110       120         135       105       115         130       100       110         125       95       105         120       90       100         115       85       95         110       80       90         105       75       85	190	160	170		
175       145       155         170       140       150         165       135       145         160       130       140         155       125       135         150       120       130         145       115       125         140       110       120         135       105       115         130       100       110         125       95       105         120       90       100         115       85       95         110       80       90         105       75       85	185	155	165		
170       140       150         165       135       145         160       130       140         155       125       135         150       120       130         145       115       125         140       110       120         135       105       115         130       100       110         125       95       105         120       90       100         115       85       95         110       80       90         105       75       85	180	150	160		
165       135       145         160       130       140         155       125       135         150       120       130         145       115       125         140       110       120         135       105       115         130       100       110         125       95       105         120       90       100         115       85       95         110       80       90         105       75       85	175	145	155		
160       130       140         155       125       135         150       120       130         145       115       125         140       110       120         135       105       115         130       100       110         125       95       105         120       90       100         115       85       95         110       80       90         105       75       85	170	140	150		
155       125       135         150       120       130         145       115       125         140       110       120         135       105       115         130       100       110         125       95       105         120       90       100         115       85       95         110       80       90         105       75       85	165	135	145		
150       120       130         145       115       125         140       110       120         135       105       115         130       100       110         125       95       105         120       90       100         115       85       95         110       80       90         105       75       85	160	130	140		
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135       105       115         130       100       110         125       95       105         120       90       100         115       85       95         110       80       90         105       75       85	145	115	125		
130     100     110       125     95     105       120     90     100       115     85     95       110     80     90       105     75     85	140	110	120		
125       95       105         120       90       100         115       85       95         110       80       90         105       75       85	135	105	115		
120     90     100       115     85     95       110     80     90       105     75     85	130	100	110		
115     85     95       110     80     90       105     75     85	125	95	105		
110     80     90       105     75     85	120	90	100		
<b>105</b> 75 85	115	85	95		
	110	80	90		
<b>100</b> 70 80	105	75	85		
	100	70	80		

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