

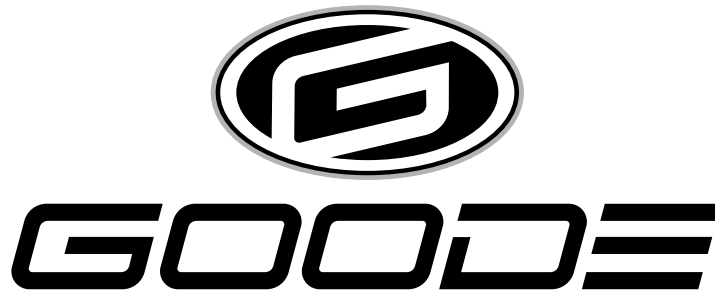


GOODE

**2005/2006
Snow Ski
Technical Manual**

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Dear GOODE Skier:

For years, I dreamt of building a ski that is lighter in weight, more powerful, easier to turn, and more fun than any snow ski ever built. I thought that in order to build these “Dream Skis”, I would need to reinvent the way skis are designed and manufactured. That’s what I set out to do.

My research led me to select CARBON FIBER as the main ingredient in my “Dream Skis”. CARBON FIBER has over six times (6X) the strength-to-weight ratio over fiber-glass/Titanal, the stuff (materials) used to build all other skis. CARBON FIBER skis are not only stronger, but lighter, and more reactive.

However, as with anything, there are trade-offs. CARBON FIBER is expensive, has longer molding cycles, and needs to be processed by hand. I realized my “Dream Skis” could never be mass-produced.

So, today we build each GOODE Ski by hand, one at a time, with the same passion that my staff and I share for skiing. Our small production team takes pride in the quality of their work. We’re proud to be building the only all CARBON FIBER skis built in the world.

Dreams can become reality!

I hope you enjoy your skis.

Sincerely,

Dave Goode
President/Founder
GOODE Ski Technologies USA
www.goode.com

PS. I appreciate your comments. Feel free to contact me at goode@goode.com.

GOODE Alpine Skis

Attributes

- Unique Construction- built like no other ski in the world.
- ALL CARBON Fiber construction, including the core (no wood).
- Lighter – 50% the weight of conventional skis. Less weight – easier to turn.
- Stronger – CARBON at less than ½ the weight and has over 2X the strength.
- High Flex/Torsion Ratio – The softer flex allows for easy turning. The stiffer torsional flex allows the ski to hold better.
- Smooth/Quiet – 5 full length dampening ribs deliver a smooth/quiet glide.
- Performance Sidecut – Engineered to provide great all-mountain performance.
- Hand Built – Each pair of skis is built by hand (not mass produced).
- Satisfaction Guaranteed
- 1 Year Warranty

Model Specs

CARBON 64

<u>Model</u>	<u>Length</u>	<u>Tip</u>	<u>Waist</u>	<u>Tail</u>	<u>Sidecut</u>	<u>Turn Radius</u>
155 C64	155	115.1	64	100.9	22	10.5
166 C64	165.5	115.5	64	100.5	22	11.8
175 C68	175	114.3	68	100.9	19.8	15.0
185 C64	185	101.2	64	90.8	16	21.3

CARBON 68

155 C68	155	113.4	68	101.8	19.8	11.3
165 C68	165	113.9	68	101.3	19.8	13.1
175 C68	175	114.3	68	100.9	19.8	15.0
185 C68	185	114.8	68	100.4	19.8	17.0

CARBON 74

154 C74	154	117.0	74	103.0	18	12.3
164 C74	164	117.5	74	102.5	18	14.2
174 C74	174	118.0	74	102.0	18	16.3
184 C74	184	118.5	74	101.5	18	18.5

CARBON 82

156 C82	156	118.9	82	109.1	16	14.2
166 C82	166	119.3	82	108.7	16	16.4
176 C82	176	119.7	82	108.3	16	18.8
186 C82	186	120.0	82	108.0	16	21.3

CARBON 95

162 C95	162	124.9	95	113.1	12	20.7
172 C95	172	125.3	95	112.7	12	23.8
182 C95	182	125.7	95	112.3	12	27.0
192 C95	192	126.2	95	111.8	12	30.5

CARBON 116

163 C116	163	138.3	116	123.7	7.5	32.2
183 C116	183	139.3	116	122.7	7.5	42.1

Snow Ski Terminology

Base - the bottom surface of the ski that aids in gliding.

Camber - the curvature of the ski's base that helps distribute the skier's weight over the length of the ski. Camber is the internal arc that is built into the ski.

Cord length - the overall length of the ski.

Dampening - the reduction of ski vibration or "chatter".

Edge - the metal surface on the ski that aids in snow holding.

Flex/Torsion Ratio - the relationship of a ski's longitudinal flex to its torsional flex. Softer longitudinal flex and stiffer torsional flex provide more stability.

Length - the measurement in centimeters (cm) from the ski's tip to its tail.

Longitudinal flex - the measured amount in which the ski flexes along its length.

Profile - the outline of the ski when viewed from the top or bottom.

Running surface - the total area of the ski that contacts the snow's surface when the ski is flat.

Side cut - the "hourglass" shape a ski has as a result of a wide tip and tail and a narrow waist. Tip, waist and tail are measured in millimeters (mm).

Swing weight - the rotational mass of the ski - a lower swing weight allows quicker turn initiation.

Tail - the rearward most part of the ski.

Tip - the forward most part of the ski.

Torsional flex - the measured amount in which the ski flexes along its width or the amount in which the ski "twists".

Weight - the physical mass of the ski.

Binding Installation

Quality binding installation is essential for maximizing ski performance and ensuring proper binding function. The following instructions are recommended for all GOODE skis.

Normal Binding Installation Procedure:

- 1) Adjust the binding installation jig to the boot and lock in position per the binding manufacturers instructions.
- 2) The 2004/2005 CARBON series skis are mounted at a **mid-sole** position. Position the mounting jig so the boot mid-sole is aligned with the "MID SOLE" mark on the binding platform. Mounting position for female skiers can be up to 2cm forward for optimal turn initiation performance.
- 3) Use a 3.5~3.8 mm diameter drill bit 9.5mm long. Do not drive the shoulder into the binding platform, as this could make the hole too deep.
- 4) Thoroughly clean debris out of the hole and scrape or file off any material sticking above the top of the hole.
- 5) Partially fill the holes with a waterproof glue (white glue) that is not water-based, or epoxy, before installing the screws. This will seal the hole. We recommend GE Silicone II Household Glue, stock number GE280, available at most hardware stores.
- 6) Drive all screws into the ski as recommended by the binding manufacturer to a torque value of 4 N-M. Double check to make sure the screws and binding are fully seated on the ski. Do not over torque the screws.
- 7) Inspect the final installation per the binding manufacturer procedures.

Special Binding Mounting Considerations:

- 1) If the hole is damaged it must be repaired before binding installation. Fiberglass or Carbon wool and epoxy is recommended. Re-drill and tap the hole after the hole is filled and the epoxy has cured. Drilling a larger hole for repair is not recommended.
- 2) Removal of the binding plate for binding or riser plate mounting can be done. If removal is necessary make sure the ski is at least 12 mm thick where a standard binding mounting screw is installed. If the ski is thinner the screw and drill bit must be at least 3 mm shorter than the full ski thickness. Drilling the hole deeper or using a longer screw could damage the lower laminate and significantly reduce the strength of the ski.
- 3) Special care and inspection must be performed when mounting a telemark or 3-pin binding. The screws must be of adequate thread thickness for screw retention strength. Replace the screws with a proper length alpine binding screw if the threads are thin in comparison. Measure to make sure the screw does not project more than 8.5 mm below the binding. 3-pin toe pieces with a tight cluster of screw holes must not be directly mounted to the ski. Mount the toe piece onto a riser or adapter plate with screw holes at least 7 cm apart along the length of the ski. Mounting a 3-pin toe piece with a tight cluster of screw holes directly onto the ski is not advised and may void the warranty for related damage.
- 4) When mounting a telemark or randonee binding check to make sure all holes line up with the binding platform before drilling. Adjust the position as necessary.
- 5) Drilling extra holes or re-mounting a binding may void the warranty for related damage. Extra holes must be at least 2 cm apart, as measured down the length of the ski. Drilling extra holes less than 2 cm apart may dramatically reduce the strength and durability of the ski.

Special Warning: The Goode 95 and 116 models require the use of a ski brake that can accommodate a ski width of 95 mm and 116 mm, respectively. Appropriately sized binding installation jigs must be used to insure proper centering of the binding.

Binding Mounting Locations

Each GOODE ski has a "Mid-Sole" mounting mark on the binding mounting plate. To mount using a MID-SOLE template, place the Mid-Sole of boot on the "Mid-Sole" mark on the ski. Adjustments may be necessary when mounting ski boots smaller than 260mm or larger than 350mm.

Recommended Mounting Positions**

Snow Ski Binding Mounting Chart

Model	Mid-Sole From Tail* <u>CM</u>
155 C64	69.5
166 C64	73.0
175 C68	77.5
185 C64 FIS GS	82.5
155 C68	69.5
165 C68	73.0
175 C68	77.5
185 C68	82.5
154 C74	69.0
164 C74	72.5
174 C74	77.0
184 C74	82.0
156 C82	68.5
166 C82	72.0
176 C82	76.5
186 C82	81.5
152 C95	68.0
162 C95	71.5
172 C95	76.0
182 C95	81.0
192 C95	86.0
163 C116	72.0
183 C116	81.5

* All dimensions are measured from the tail of the ski.

** Check current mounting revisions at www.goode.com/ssbindings.html

Special Warning: Double check Mid-Sole mark on binding plate prior to mounting.

Tuning

All GOODE Skis are factory tuned to the recommended specifications. These tuning specifications are only for 2005/2006 GOODE Skis. It is better to have the skier try the skis on the hill with the factory tune specifications than to modify them to other specifications. Changes to the factory tune should be justified based on skier performance feedback. The base is an ultra-high molecular weight sintered graphite race quality base material. General Tuning Specifications are as follows:

<u>Property</u>	<u>Value</u>	<u>Comments</u>
Base Edge Bevel	1 degree	Full edge width only. If customer notes excessive grabbiness, 1. Check for burrs, 2. Check angle consistency, 3. Polish edge.
Side Edge Bevel	2 degree	
Base Finish	Medium	Adjust for local and seasonal conditions
Tip Edge Bevel	None full sharp no burrs	Adjust per customer specifications. De-tune as a last resort.
Tail Edge Bevel	None full sharp no burrs	Adjust per customer specifications. De-tune as a last resort.

Base Flatness

Generally the base must be stone-ground as flat as possible. Slight concavity in the shovel area is not a cause for concern unless, after skiing, a negative performance attribute is related to the concavity. Burrs or edge curl should be the first area of investigation for grabby or control issues.

Base Finishing

The factory base structure is a very versatile multi-condition finish. Adaptations can be made to match local conditions and seasonal variation. For specific finishing machine set-up conditions consult your tuning equipment manufacturer's specifications.

Base Edge and Side Edge Tuning

Refer to the above specifications for proper edge angles. These specifications in conjunction with a full-length sharp edge that is smooth or polished will provide excellent performance.

The combination of specific fiber orientation and the extremely high modulus of carbon fiber allows us to design skis with very aggressive edge hold at the tip and tail. The torsional stiffness of many of our skis is greater than high performance and racing stock aluminum (sometimes referred to as titanium) skis. The very light weight of carbon skis also increases their reactivity and responsiveness. The flex profile tuning of all GOODE Carbon Fiber Skis was chosen to provide the best all around performance. Some tip de-tuning may be desirable for skiers wanting a smoother and less aggressive feel. Adjust only as needed, after slope testing, to address any negative performance related issues that can be associated with a sharp tip or tail.

Because of the high torsional stiffness and relentless edge hold of a GOODE Ski the main edge tuning issue is removal of burrs on the edges from tuning, handling, or slope damage. Burrs or edge curl should be the first area of investigation for grabby or control issues.

Wax

Wax is good. Use it as often as possible to maximize the performance and fun of skiing.

Download the most current revision of this manual at: www.goode.com/ssbindings.html

Warranty

GOODE skis carry a limited warranty for one year from the date of purchase. This limited warranty is void unless registered with GOODE. GOODE will replace (at GOODE's option) the skis if found to be defective as to workmanship or material. This warranty does not extend to damage resulting from misuse, neglect or abuse, normal wear and tear, accident or exterior appearance or color, breakage (except breakage resulting from manufacturing defects), improper dealer service, or improper mounting of bindings.

This limited warranty extends only to the original consumer who purchased new skis from an authorized GOODE ski dealer, that also mounted the bindings onto the skis. In the event the bindings are changed within the one year period, they must be remounted by a GOODE dealer.

In no event shall GOODE be liable for incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation exclusions may not apply. All implied warranties or merchantability or otherwise are limited in duration to one year following the date of purchase.

If a defect arises in the skis within the limited warranty period, the user should promptly return the product to the authorized GOODE dealer from whom they were purchased. GOODE will not be responsible for any costs, such as, but not limited to, removing bindings, remounting bindings, handling, shipping or insurance. If the skis are replaced, the replacement product is covered only for the remainder of the original limited warranty period dating from the purchase of the original skis.

Furthermore, if skis that need to be replaced are a discontinued model, they will be replaced with skis of comparative performance. Please allow four weeks for completion of repairs or of replacement and return of your product. This limited warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Warranty Procedures

Warranty service is very important to everyone concerned. Therefore, we ask that you comply with the following procedure to ensure efficient service or replacement. No returns will be accepted without prior return authorization from GOODE. Compliance with these procedures will ensure the quickest possible resolution of your warranty claim.

To Obtain Return Authorization

An authorization number may be requested by email at goode@goode.com or phone: **248-666-2500**

Be ready to provide the following information:

- a. Purchaser's name, shipping address, email address and phone number.
- b. Model of skis
- c. Length
- d. Serial number of ski
- e. A brief description of the damage
- f. Record the Return Authorization Number which is assigned to your warranty return.

To Return Warranty Skis

1. Attach a copy of the PROOF OF PURCHASE to the skis.
2. Package the skis carefully to prevent further damage.
3. Write the RETURN AUTHORIZATION NUMBER clearly on the outside of the carton being returned.
4. Ship the skis FREIGHT PREPAID to:

GOODE Ski Technologies, 2450 Wall Ave., Ogden, Ut 84401



GOODE