



2021/2022 EUROPEAN SKI TOURING EQUIPMENT LIST

EQUIPMENT CHECKLIST

You MUST bring all items listed on the clothing and equipment checklist below. The only exceptions are items listed as optional. This is very important. At the same time, you must keep your equipment weight to a minimum. Please contact us with any questions you may have about the equipment or clothing on this list.

Body Wear

- Waterproof shell jacket
- Waterproof shell pants
- Down jacket
- Midweight insulated jacket
- Lightweight fleece top
- Softshell pants
- Base layer tops (x 2) and leggings (x 1)
- Underwear and socks

Head Wear

- Sun hat
- Warm hat
- Ski goggles
- Sunglasses
- Scarf, bandana or Buff

Hand Wear

- Liner gloves
- Fleece gloves
- Ski/mountaineering gloves

Packs & Bags

- Small duffel/travel bag
- Ski pack (35–45 litres)
- Ski or snowboard bag

Ski Gear

- One of the following combinations:
 - a) Touring skis, boots and climbing skins
 - b) Split board, boots and climbing skins
 - c) Telemark skis, boots and climbing skins

- Ski poles
- Ski crampons
- Ski strap
- Repair kit
- Avalanche transceiver
- Avalanche probe
- Snow shovel

Climbing Equipment

- Ice axe
- Crampons
- Climbing harness
- Locking carabiner x 1
- Prusiks (1 x long and 1 x short)

Accessories

- Surgical style face mask
- Hand sanitiser
- Headlamp and spare batteries
- Stuff sacks and plastic bags
- Personal toiletries
- Personal first aid kit and medication
- Sunscreen and lip balm
- Water bottle (1 litre)
- Water bottle cover
- Small thermos flask
- Camera and spare batteries (optional)
- Sleeping bag liner (a requirement for all huts)

CLOTHING AND EQUIPMENT INFORMATION GUIDE

The following information is a guide to assist you in securing the required clothing and equipment for ski touring in the Alps in winter, along with recommended brands. You may have equipment you have used which is different to what is on the list, so please read thoroughly and get back to us with any questions you may have.

Fabrics/Garment Designs/Garment Selection

Today there is a bewildering and ever-changing array of modern technical fabrics and garments on the market. Accordingly, suitable mountain attire can be derived from a wide variety of garments utilized in varying combinations. The clothing on our gear list can be creatively substituted according to your preferences but ensure your choices are functional and adequate. For example, a functional and often utilized garment that does not appear on our list is a vest.

A basic principle in selecting clothing and equipment is to minimize weight and bulk while still ensuring adequate warmth and functionality. It can be difficult to find a brand that has all the features you prefer which means you must make prudent compromises. In the description below and for certain items, we suggest brands and specific products that we have found to be suitable; this is by no means definitive. In some cases, there are multiple suitable brands on the market and hence we do not make specific suggestions.

Appropriate fabrics used in thermal underwear include polypropylene, silk and merino wool. The only cotton garment worn during the climb is your glacier shirt. Warmer insulating materials can be made from fleece, softshell or Primaloft. Varieties of fleece include Windstopper, Wind Pro, Power Shield, Windbloc, Power Dry and Power Stretch. Be aware that fleece garments that incorporate stretch fabric take longer to dry. Softshell garments integrate stretchy nylon fabrics to increase freedom of movement while also providing various degrees of wind and water resistance in a 'softshell'. They are often lined with a microfleece for increased insulation. Synthetic insulation materials such as Primaloft are advantageous as they are warm even when damp, are water resistant and quick-drying.

You can read Guy Cotter's thoughts on the ultimate lightweight layering system at: <http://adventureconsultantsblog.com/optimum-layering/>.

BODY WEAR

Waterproof Shell Jacket

Bring a non-insulated, fully waterproof shell jacket with a good hood and water-resistant zip closures. The jacket should be easy to move in with your base and mid-layers on underneath, as well as providing a good overlap with your pants but should not be so long that it restricts access to your harness. Chest pockets are useful to things like snack bars and sunscreen during the day. Pit zips allow for increased ventilation and cooling.

There are numerous waterproof/breathable fabrics on the market such as Gore-Tex, eVent, MemBrain, PreCip and Entrant, etc. These fabrics can be expensive but can last for years, when well looked after.

Shell clothing should be seam-sealed during the manufacturing process or the garment will leak through the stitching. Shell clothing made of PVC or similar is waterproof but does not breath, which means you become damp from the inside out as moisture cannot escape while you are moving. This style of waterproof shell is not suitable for ski touring.

We recommend The North Face Freethinker Futurelight Jacket, Arc'teryx Alpha AR Jacket, Montane Alpine Pro Jacket and the Rab Muztag GTX Jacket.



Rab Muztag GTX Jacket



Arc'teryx Beta SV Bib Pants



Rab Neutrino Pro Down Jacket

Waterproof Shell Pants

Your waterproof shell pants should allow good freedom of movement to enable you to lift your legs easily, when worn with your softshell pants and base layer leggings during inclement weather.

Your shell pants should also have $\frac{3}{4}$ or full-length (preferred) zips down each leg to allow you to easily put them on and take them off while wearing your boots and/or crampons.

Bib/salopette styles are warmer as they extend above the lower back/kidney area giving a good overlap with your jacket.

We recommend The North Face Summit L5 Futurelight Full Zip Bib, Arc'teryx Beta SV Bib, Marmot Spire Bib or the Rab Muztag GTX Pants.

Down Jacket

During the colder winter months, a good quality down jacket can be a lifesaver! A midweight down jacket with a hood is recommended.

Although some down jackets have a waterproof and breathable outer fabric, these fabrics are not totally waterproof unless they are seam sealed. Models with hydrophobic down are recommended.

We recommend Mountain Equipment Vega, Montane Anti-Freeze Jacket or the Rab Neutrino Endurance Down Jackets.



The North Face Summit L3 Ventrix 2.0 Hoodie



Montane Alpine Raid Hoodie



Dynafit Mercury 2 Dynastretch Pants

Midweight Insulated Jacket

A versatile insulating layer that can be worn while trekking and climbing. The jacket can be made from synthetic insulation like Primaloft or similar, insulated softshell or a 200–300 weight fleece (although, fleece has little wind-resistance).

This jacket should have a full front zip for ventilation and zip-up pockets to prevent items from falling out while on the move. A hood is a worthy addition for extra warmth.

We recommend The North Face Summit L3 Ventrix 2.0 Hoodie, Rab Xenon Jacket, Montane Prism Jacket and the Arc'teryx Atom LT Jacket.

Lightweight Fleece Top

A lightweight, air permeable fleece top made from Polartec Power Stretch, Polartec Power Grid, Polartec Alpha, Pontetorto Tecnopile micro fleece or an expedition weight base layer is a good additional layer to add over your base layers when the temperature drops.

This layer can either be a pullover or a jacket. Hoods are optional but recommended and a zippered chest pocket can be useful for keeping sunscreen and snack bars accessible.

We recommend The North Face Summit L2 Power Grid Lightweight Hoodie, Rab Alpha Flash Jacket, Montane Alpine Raid Hoodie, Patagonia R1 Hoody or the Arc'teryx Konseal Hoody.

Softshell Pants

Softshell pants are made from stretchy, comfortable, wind resistant, water repellent materials that are also highly breathable. They are the perfect active layer for your legs. Your pants should fit comfortably with or without your base-layer bottoms.

Please note that while softshell pants shed light rain and snow, and dry quickly when they get wet, they do not replace your Gore-Tex shell pants, which will still be needed if the weather turns bad.

We recommend The North Face Summit L4 Hybrid Pants, Black Diamond Dawn Patrol Pants, Rab Upslope Pants, Dynafit Mercury 2 Dynastretch Pants and the Montane Terra Mission Pants.

Base Layer Tops x 2 and Leggings x 1 Pair

Bring two tops; one for skiing in and one for wearing in the evenings or to double up, if you get cold. Base layers must be made from materials such as merino wool or polyester. No cotton, please!

Tops should have long sleeves and a high neck with a zip. This allows for better temperature control and sun protection than crew neck styles.

Base layer leggings should fit snugly without constriction. These can be worn as a single layer on hot days or under your shell or softshell pants when additional warmth is required.

We recommend Icebreaker, The North Face Warm, Rab Forge and Pulse, Earth Sea Ski First Layer and Merino, Montane Primino and Smartwool Base Layer Ranges.

Underwear

Bring sufficient changes of your regular underwear. We recommend treated polyester or merino underwear instead of cotton as they wick away sweat from your skin, working with your thermal, fleece and shell layers to keep you dry. They also dry extremely quickly when washed. However, most people use their normal underwear.

We recommend Icebreaker, Smartwool, Rab Forge, Earth Sea Sky Merino and Montane Primino Underwear.

Socks

Have at least two pairs of socks with you for the trip. Socks made from wool or a mix of fibres with good thermal properties are the best choice.

Various combinations suit different people. Some people prefer to wear just one pair of socks in their boots, while others wear two; a thicker pair over a thin liner sock.

Try your socks out with your ski boots before your trip to ensure a good fit. This will help minimise cold toes while you are touring.

We recommend Smartwool, Icebreaker and the Darn Tough Ski Socks.



Rab Forge Boxers



The North Face Bones Beanie



Smith I/O Ski Goggles

HEADWEAR

Warm Hat

Your hat can be wool, merino, Windstopper or fleece. It should extend over the ears and be snug enough not to fly off in a strong wind.

We recommend The North Face Bones Beanie and Rab Logo Beanie.

Sun Hat

A wide brimmed soft hat or baseball cap with a bandana or Buff will protect you from the sun. The sun is extremely strong at altitude, especially as there is less pollution in the air.

We recommend The North Face Horizon Breeze Brimmer Sun Hat, available from our office.

Ski Goggles

High-quality goggles for sun and wind protection at altitude. The lens should offer visible light transmission (VLT) of no more than 30%. Those with light-sensitive eyes may wish to use a darker lens. Photochromatic models are ideal for use in changing conditions. If you don't have photochromatic lenses, then it is good to have interchangeable lenses—one with a dark and/or polarized lens and a second set with an amber or yellow lens for low visibility.

If you wear prescription glasses, please ensure they fit under your goggles.

We recommend Oakley, Bollé, Adidas, Julbo and Smith Ski Goggles.

Sunglasses

Bring sunglasses with good lenses and side-protection. The lens should be dark enough to withstand the intense reflection from the snow and MUST filter 100% of UVA, B and C radiation. Snow reflects up to 85% of solar radiation and the UV index increases 10% with every 1,000m gain in altitude, so it is important that you protect your eyes. We recommend photochromic or category 4 polarized lenses with an anti-fog coating.

If you wear prescription glasses, we recommend you get prescription sunglasses with the same specifications as above.

If you wear contact lenses, bring a pair of prescription glacier glasses as a back up.

Leashes are essential and nose guards are optional.

We recommend Julbo, Smith, Bollé, Oakley and Adidas Sunglasses

Bandana and/or Buff

A fleece, merino wool or silk neck gaiter, neck warmer or Buff is a great idea for added warmth and sun protection. A Buff makes a good face mask in windy cold weather and can replace a balaclava, when used with a warm hat.

We recommend the Adventure Consultants Branded Buff, available from our office.

HAND WEAR

Liner Gloves

These very thin, lightweight finger gloves form a base layer and are worn whenever climbing. On hot days, they protect against sunburn and can be worn under heavier gloves or mittens on colder days.

Wearing liner gloves will prevent cold injuries in situations requiring full finger dexterity. Ensure the gloves fit closely, but not too tightly. They can also be worn doubled up and should fit underneath your other glove combinations.

We recommend the Black Diamond Lightweight Gloves or the Rab Stretch Knit Gloves or Budget Polypropylene Liner Gloves.

Fleece Gloves

Bring a pair of fleece, softshell or Windstopper gloves that can be used as spares for your removable liner gloves or doubled up with your liner gloves, if it is cold.

We recommend The North Face Power Stretch Gloves, Black Diamond Midweight Gloves or the Rab Power Stretch Pro Gloves.



Julbo Explorer 2.0 Sunglasses



Adventure Consultants Branded Buffs



The North Face eTip Fleece Gloves

Ski/Mountaineering Gloves

Gloves with removable insulated liners are extremely versatile as you can wear them with or without the liners, depending on the temperature.

A good model will have abrasion-resistant palms, shaped fingers, a waterproof outer and an insulating removable liner. Cheaper models are not waterproof, so it's worth investing in a good quality pair.

Please ensure that you can fit your liner gloves underneath your mountaineering gloves. Gloves are not as warm as mitts but have the advantage of being more dexterous.

We recommend you attach wrist loops to your gloves to prevent them from being blown away by the wind.

We recommend The North Face Kelvin Gloves, Black Diamond Guide Gloves, Marmot Randonee Gloves, Rab Syndicate Gloves or the Outdoor Research Alti Gloves.

PACKS & BAGS

Small Duffel/Travel Bag

This is for storing clothing and items left in town, while you are out skiing. Bring a lock and if you're particularly adept at losing keys, please make sure to buy a combination lock and set to an easy to remember number!

We recommend The North Face Base Camp Duffels and Osprey Transporter Duffels.



Black Diamond Guide Gloves



Osprey Kamber 32 Ski Touring Pack



Salomon Extend 1 Pair Padded 165+2 Ski Bag

Ski Pack (35–45 litres)

A 35–45 litre ski-touring specific pack and the required features include crampon and ice axe attachment points, a system to attach your skis or board to the pack, and somewhere to store your snow safety gear.

We recommend the Osprey Kamber, Black Diamond Cirque, Deuter Guide, BCA Stash and the Lowe Alpine Descent 35 Ski Touring Packs.

Ski or Snowboard Bag

Bring one bag to carry skis/board in when travelling. Given the restrictions that many airlines have with sports equipment, we recommend that you check this allowance when booking flights to avoid excess baggage fees.

SKI GEAR

Touring skis/splitboard/telemark skis, boots, poles and skins—bring the gear that you know well, ensure it is in good condition and well tuned before your trip starts. Do not bring gear that you are not capable of using. Please see note below on the various options.



K2 Wayback 106 Skisk



Dynafit ST Rotation 12 Ski Touring Bindings



La Sportiva Spectre 2.0 Ski Touring Boots

Touring Skis

The best touring skis are lightweight, wide and short, for superior performance in the difficult conditions found off-piste. Some general-purpose skis such as the Volkl M5 Mantra or Fischer Ranger 98 Ti are suitable, or specific touring skis are also available such as the Black Crows Navis Freebird or K2 Wayback 106. We recommend that you visit a reputed ski shop to assist you with purchasing the right ski for you.

Touring Bindings

Touring bindings are much lighter than the 'standard' ski binding and allow free heel lift for uphill touring, which then locks down for skiing. Tech style bindings have recently become the standard for ski touring. These bindings are extremely lightweight but can only be used with Tech binding compatible boots. Companies such as Dynafit, Marker, Fritschi, Plum and G3 all make great examples of this type of binding.

The best step-in touring bindings are still the Fritschi Diamir Series. The 'Eagle' binding is suitable for those who will be mostly touring and the 'Freeride' binding is an excellent choice for those needing a hardwearing binding for on-piste and touring. The Marker Duke and Baron or Salomon/Atomic Guardian bindings are also suitable but are quite heavy in comparison to the Fritschis. All bindings must be fitted with brakes.

We recommend the Dynafit ST Rotation, G3 Ion, Fritschi Tecton 12 and Salomon Shift MNC Bindings.

Touring Boots

When selecting a touring boot, ensure that the hinge is flexible enough to allow for comfortable walking. It is important to have your boot fitted by a qualified technician. If you have problems with your feet, consider purchasing foot beds as well.

We recommend Scarpa, Dynafit, Atomic, Salomon, La Sportiva and Scott Ski Touring Boots.

Climbing Skins

Climbing skins are available in different widths and should be wide enough to cover all, but the metal edges of your skis to maximize climbing ability; particularly when traversing hard snow. Your guide can help you fit your skins to your skis.

Keep self-adhesive skins out of the dirt and store them dry in a sturdy plastic bag to prevent the glue from drying. Fold the ends of each skin to its centre, with the sticky sides together.

Nylon skins are more durable than other alternatives on the market such as mohair. However mohair glides better than nylon.

We recommend the Black Diamond GlideLite and G3 Alpinist Climbing Skins.

Split Board

Specifically designed with backcountry touring in mind, the split board halves lengthways to allow climbing skins to be attached, so you can skin like you were on skis. This eliminates the need for snowshoes, means much faster travel and more runs for the boarder!

Your regular snowboard boots are suitable for use with a split board, but make sure that your boots are compatible with any crampons you bring—contact us for advice.

We recommend Burton, Jones or Voile Split Boards and the Spark R&D Split Board Bindings.

Telemark Skis and Boots

Only use this option if you are already a competent telemark skier! Ensure that your telemark skis have runaway leashes and if you are using a cable binding, bring a spare cable with you.

Scarpa and Crispi make excellent modern plastic telemark boots. Leather telemark boots are not suitable, due to the telemark boots having a toe welt at the front of the boot, so it is important that you find crampons that will fit—contact us for advice.

Ski Poles

Regular ski poles are fine. Regular ski tourers often prefer a slightly longer pole than that usually used in downhill skiing. If you are snowboarder, you should use a strong, lightweight pair of telescopic ski poles that you can stash easily on the side of your pack, when riding.

We recommend Leki and Black Diamond Poles.



Pieps DSP Sport Transceiver



Backcountry Access RS EXT Snow Shovel



Black Diamond Quickdraw Carbon Probe 240

Ski Crampons

These are a highly recommended addition for touring and telemark set-ups. Please ensure that they are compatible with your binding system and fit the width of your skis.

Ski Strap

These are used to lash your ski tips together when they are carried on your pack or to help carry skis on lifts and buses.

Repair Kit

Take a small repair kit containing any spare parts or specific tools for your skis, boots and bindings.

Avalanche Rescue Equipment

Winter conditions necessitate these avalanche safety items be carried. However, if you have your own gear, then bring it along as it is best to use equipment that you are familiar with.

Transceivers are used to locate a buried victim in the least amount of time possible. If purchasing a transceiver, look for a digital model that is easy to use. All avalanche transceivers transmit on the same 457kHz frequency and are compatible with all other analogue or digital models.

Avalanche probes are made up of multiple aluminium sections, tensioned by a cable and extend to form a 2–3 metre pole for probing avalanche debris.

Your shovel should be a lightweight, avalanche-specific model. Plastic shovels are not recommended. A telescopic handle and a large, metal blade will allow you to move more snow quickly.

We recommend Backcountry Access, Pieps, Mammut/Barryvox or Ortovox Transceivers, and Black Diamond, Ortovox or BCA Shovels and Probes.

CLIMBING EQUIPMENT

Ice Axe

We recommend a lightweight ski mountaineering ice axe rather than a heavy tool. The axe should be roughly 50–65cm, depending on your height and the axe should have a basic wrist leash of some sort.

We recommend the Black Diamond Raven Pro, Petzl Glacier Literide and Grivel Haute Route Ice Axes.

Crampons

Aluminium crampons with horizontal frontpoints, a toe harness and heel bail are best as they fit a variety of boots and are easy to put on in the cold. Ensure your crampons are fitted with 'anti-balling' plates. Please avoid technical ice climbing crampons with vertical front points.

Please check the crampons fit securely onto your ski/snowboard boots, and that the strap is long enough.

We recommend the Grivel Air Tech Light New-Matic and Petzl Irvis Hybrid Crampons.

Climbing Harness

Bring a lightweight alpine climbing harness. It must have adjustable leg loops and waist to fit over the varying clothing combinations that are worn during the trip.

We recommend the Petzl Altitude, Mammut Zephir Altitude and Black Diamond Couloir Harnesses.

Locking Carabiner x 1

Bring a pear shaped screw gate or twist lock carabiner. Do not get the ball lock type.

We recommend Petzl and Black Diamond Locking Carabiners.

Prusiks (1 x Long and 1 x Short)

A prusik is a friction knot used to attach a loop of cord around a rope. Prusiks are generally made from 6mm cord. You will need to bring 2 prusiks on this trip—a long prusik made from 3.2m of cord and a short prusik made from a 1.6m length. Use a double or triple fisherman's knot to join the ends and create the loop. Your guide can help tie these.



Petzl Glacier Literide Ice Axe



Grivel Air Tech Light New-Matic Crampon



Mammut Zephir Altitude Harness

ACCESSORIES

Surgical Style Face Mask

This is a requirement while travelling anywhere that you cannot self distance while COVID-19 restrictions are in place.

Hand Sanitiser

For times when hand washing facilities are not available and to aid in the prevention of COVID-19.

Headlamp and Spare Batteries

The new high-output LED headlamps are superb as they provide an excellent level of lighting and are also very light. Bring two NEW sets of lithium or alkaline batteries for the trip. Avoid the 'micro' or simple LED models as they have problems with battery life and light levels.

We recommend the Petzl Actik, LED Lenser SEO 7R or the Black Diamond Storm 375 Headlamps.



Black Diamond Storm 375 Head Torch



Lip Balm and Sunscreen



Adventure Consultants Branded Nalgene 1 Litre Wide Mouth Bottles

Stuff Sacks and Plastic Bags

For keeping your gear organised and dry.

We recommend Sea to Summit Stuff Sacks and Dry Bags.

Personal Toiletries

Bring a small toilet kit—flannel, some soap, small tube of toothpaste and toothbrush. Keep it light.

Personal First Aid Kit and Medications

A basic personal first aid kit is necessary including blister tape, second skin, gauze pads, crepe and triangular bandages, and painkillers. Store the first aid kit in a waterproof container or a plastic bag inside a stuff sack.

Also bring any personal medication you may be using. Please remember to inform your guide if you are on prescription medicine. Your standard medications can be dangerous at altitude.

Sunscreen and Lip Balm

Bring a small tube of maximum protection sun block. Lip balm (with SPF 15 or higher) is worth carrying in your pocket for application during the day.

Water Bottle (1 litre)

Wide mouth plastic bottles are best. Camelbak style water bladders are fine in theory, but often freeze and are easily punctured.

We recommend Nalgene 1 Litre and 500ml Wide Mouth Bottles.

Water Bottle Cover x 1

Bring an insulated water bottle cover will slow the rate of the freezing of your water.

We recommend the Outdoor Research Water Bottle Parka and the Forty Below Bottle Boots.

Small Thermos Flask

A small vacuum insulated Thermos flask/bottle for hot drinks, which is made from stainless steel and about 500ml to 750ml in capacity.

We recommend Primus Vacuum Bottles.

Camera and Spare Batteries (Optional)

Your choice of SLR or fully automatic cameras. Be aware that batteries can be a problem in cold temperatures, so it is important you bring spare sets of batteries. Don't forget to bring spare memory cards either!

Sleeping Bag Liner (A Requirement For All Huts)

These are for use with the blankets supplied in the huts.

We recommend Sea to Summit Sleeping Bag Liners.

NOTE: If you find that you have forgotten anything when you arrive, do not worry as there are plenty of stores that specialise in ski touring equipment. Your guide will be happy to help you with any purchases you would like to make.

If you would like to rent any equipment, please let the staff at the office know when you book and they will make sure that it is put aside and available for you, upon your arrival. If you have any questions, please ask.