

American Alpine Institute^{Ltd.}

BOLIVIA EXPEDITION EQUIPMENT CHECKLIST

During your expedition in Bolivia, you will encounter a very wide range of temperatures and weather conditions. As such, the equipment you bring must function well in a wide variety of environments. Your clothing should be warm, lightweight, dry quickly, and allow good freedom of movement. The layering principle, based on several thin layers of insulation (rather than one thick one), meets these requirements well. Please take time to choose your clothing and equipment carefully; it may make the difference between a comfortable and successful trip and one that could have been more enjoyable.

On the trek of Part I, temperatures will usually range from a low of 25F at night (at our highest camp) to daytime highs of 40F to 70F. During Part II, nighttime temperatures can drop to the lower teens at our high camps. Daytime summit temperatures vary greatly. On a still, sunny day it can be well above the freezing point, but when the weather is windy and the temperature drops into the teens, the climbing can be very cold. At our base camps temperatures invariably drop below freezing at night, but usually warm up into the 40's or 50's during the day. Once or twice every year a storm drops several inches of snow at the level of Lake Titicaca. There is little difference in the equipment needs between Parts II and III. Even if you do not plan to participate in Part III (the ascent of Illimani), you will still need to bring all the items on this list. The ascent of Illimani, however, tends to be about 5 to 10 degrees colder and windier than the climbs undertaken during Part II. You should be particularly careful that your boots are adequately warm and comfortable in temperatures as low as 0F.

Please take the time to properly label and identify all items of personal gear. With many climbers all sharing a single campsite, it can be very easy to forget which water bottle or set of gloves belongs to you. Be sure to mark your name on a clothing tag. Colored tape or fingernail polish is excellent on other items. If using tape or colored markers, make sure your labeling method is durable and water resistant.

All items of clothing should be inspected to make sure that the seams, stitching, and waterproof properties of the garments are intact and adequate for the rigors of an expedition. Used articles of clothing including shell jackets and softshell items should be cleaned and treated with a durable water repellent (DWR) such as Nikwax TX Direct or Gore-Revivex. Gloves with leather or synthetic palms should be treated with a waterproofing agent such as Nikwax. Make sure all of your packs and bags have buckles and straps that are in good working order.

When preparing your equipment for travel to the Bolivia, protect your equipment by covering your ice axe, crampons, and trekking poles with cardboard or other protection to prevent puncturing or tearing less durable equipment. Please pack your boots and shell jacket/pants into your carry-on luggage. Delayed luggage is not uncommon.

At AAI we take equipment and its selection seriously. Our Equipment Services department is expertly staffed by climbers, skiers and guides. Additionally, we only carry products in our store have been thoroughly field tested and approved by our guides. This intensive process ensures that all equipment that you purchase from AAI is best suited to your course and future mountain adventures. Please contact us to select equipment for your course.

Clothing & Footwear

Base Layer Top: This will be your base layer and should be “lightweight” or “silk weight” synthetic or wool. Bring two. Cotton is **not allowed**.

Weight: 5 - 8 oz / 140 - 225 grams *Materials:* Synthetic, wool.

Own Buy

Base Layer Bottom: Look for the same features as your Base Layer Top.

Weight: 5 - 8 oz / 140 - 225 grams *Materials:* Synthetic, wool.

Own Buy

Undergarments: Most climbers wear undergarments underneath their base layer.

Materials: Synthetic, wool

Own Buy

2nd Layer Top: A lightweight fleece or wind shirt. A chest pocket is a helpful feature of this multi-use layer.

Weight: 13 - 16oz / 368-454 grams

Materials: Nylon, micro weave fabrics, fleece, wind stopper

Own Buy

Soft Shell Jacket: A thin, light, stretchy, breathable but wind and snow-resistant layer that is comfortable to wear is ideal. This will be your 'action layer' and the outer layer that you spend the most time in. Hoods are optional but highly recommended. Size your jacket to be trim fitting, but large enough to fit over your base and second layers.

Weight: 18 - 26 oz / 510 - 737 grams

Materials: Schoeller, Powerstretch, Powerdry, or similar

Own Buy

Soft Shell Pants: A thin, light, stretchy, breathable but wind and snow-resistant layer that is comfortable to wear is ideal. This will be your outermost layer most of the time for your legs. A thigh pocket is a useful feature for storing small items.

Weight: 16 - 30oz / 450 - 850 grams

Materials: Schoeller, Powerstretch, Powerdry, or similar

Own Buy

Shell Jacket: This layer needs to be waterproof, breathable, and durable. Your shell should be sized to comfortably fit over your other base and mid-layers (minus your insulating layer). Choose the lightest, most packable shell that will still get the job done. You may be using your jacket every day (in warm, wet weather) or perhaps only during an occasional storm. Avoid extra pockets (one or two chest pockets is all you need), 3-layer Gore-Tex, and hanging linings. Your hood should fit over your climbing helmet.

Weight: 8 - 20oz / 227 – 566 grams

Materials: eVent, Gore-tex, h2No, or similar

Own Buy

Shell Pants: Made of a waterproof/breathable material, your lightweight shell bottoms should have full or hip-length side zips. This garment should be extremely lightweight and packable. A zipper fly is a nice optional luxury.

Weight: 8 - 16oz / 227 – 453 grams

Materials: eVent, Gore-tex, h2No, or similar

Own Buy

Light Insulating Top Layer: The goal for this piece is to add warmth to your internal layering system. Depending on your clothing system, and the environment you are in, you may fit this layer underneath your shell gear (e.g. fleece sweaters) or over your shell gear (lightweight insulated jackets). If choosing fleece, pick modern fleece garments with waffle-grid patterns and avoid “windproof fleece” – it is not breathable enough. The weight and design of this piece will vary based on the other items of climbing that you are bringing.

Weight: 10 - 20oz / 283 – 566 grams

Materials: fleece, Primaloft, down

Own Buy

Mid-weight Insulation Jacket: Sometimes called a “belay jacket”, these consist of a baffled parka and optional hood; these come in many shapes, sizes and temperature ratings. If you tend to get cold easily, opt for a slightly warmer and more substantial parka.

Weight: 20 - 40oz / 566 – 1133 grams

Fill Materials: Primaloft, down

Shell Materials: nylon, epic, eVent

Own Buy

Fleece Gloves/Glove Liners: You will wear these for much of your time on the mountain. They need to be dexterous and comfortable, but not necessarily very insulating. Bring two pairs.

Materials: fleece, Powerstretch, or similar

Own Buy

Mid-weight Fleece/Schoeller/Leather Gloves: The most desirable glove is one that is comfortable and dexterous, so that it can be worn all day. It should have leather palms to withstand the rigors of expedition climbing. They come in different weights, so choose a medium thickness for this expedition.

Weight: 4 – 8 oz / 110 – 200 grams

Materials: softshell, windstopper fleece, leather or similar

Own Buy

Expedition Gloves: Composed of heavy-duty waterproof shells with *extremely* warm liners, these modular gloves **MUST** have removable liners. The highest priority with these gloves is warding off frostbite, not dexterity. Gauntlets should extend to mid-forearm. These gloves should have “idiot loops” – a keeper string so they’re not dropped and lost.

Weight: 9 – 14 oz / 255 – 400 grams

Shell Materials: Gore-tex or similar

Own Buy

Summit Day Mittens: Required for Part III only. Make no compromise with these as they are the first and often last defense against frostbite. These are expedition-weight modular mittens, down or synthetic, with a storm-proof shell. You want your mitts to be extremely warm and thick. This is more important than dexterity. Gauntlets should extend to mid-forearm. These need to be large enough to allow for liner gloves to be worn underneath. Please attach keeper loops to them.

Weight: 12 – 16 oz / 340 - 453 grams

Fill Materials: Down, Primaloft, Polarguard 3D

Shell Materials: Gore-tex or similar

Own Buy

Beanie Hat/Toque: A thinner warm hat that will fit under your climbing helmet and over your balaclava.

Weight: 2 - 4oz / 56 – 112 grams

Materials: fleece, wool, windstopper, or similar

Own Buy

Sun hat: A baseball cap or visor serves well. Models with a “tail” are recommended for increased sun protection.

Materials: nylon or similar

Own Buy

Lightweight Balaclava: A balaclava is a warm hat that can be pulled over the head to the shoulders. It completely covers the head except for an opening for the face. It should provide excellent wind protection for the chin, ears and neck. A Buff (described below) can substitute for this.

Materials: Powerstretch, fleece, polypro, windpro

Own Buy

Socks: Bring six complete changes. Most climbers prefer to wear a very thin liner sock underneath a thicker hiking/mountaineering sock. Adjust your sock system ahead of time to perfect your boot fit. Bring additional changes of socks for your approach shoes.

Materials: wool, synthetic

Own Buy

Gaiters: These can be regular gaiters or a supergaiter. They should be knee-high in length. Supergaiters are highly recommended for ‘single’ boots. These should be glued to the boot in advance. Getting supergaiters on your boots is a rather involved process and if they come off while on the mountain it will be extremely difficult to get them back on.

Weight: 8 – 12 oz / 220 – 340 grams

Materials: Cordura, nylon, or similar

Own Buy

Comfortable Walking Shoes: For use around La Paz. These can be the same shoes for the trek. However, the end of the trek can be wet and muddy. You may want to bring another pair to change into and to wear when we go out to dinner in town.

Own Buy

Trekking/Hiking Boots: Comfortable hiking or approach shoes are required. Good ankle support is a desirable feature of these shoes. The approach into base camp is a very rough and rocky trail. Please break these in thoroughly before your expedition.

Own Buy

Travel and Town Clothes: We occasionally like to go out to good restaurants while in La Paz. You may want something other than your climbing clothes to wear.

- light cotton or other pants, jeans are fine if they are nice.
- light cotton or other shirt, sweaters are nice. Daytime temperatures are never that high in the winter months.
- footwear other than sneakers or hiking boots

Own Buy

High Altitude/Cold Weather Mountaineering Boots: Double boots are required for Part III. These should be designed for extended use in temperatures as cold as 0F. Modern synthetic double boots can be more comfortable, but are more expensive. In plastic boots, thermo-mold liners are warmer, lighter, and more comfortable than standard liners. Single (hybrid leather/synthetic) mountaineering boots are adequate for Parts I & II. However they must be used with super gaiters. As a point of reference most people use plastic boots.

Shell Materials: Synthetic, plastic, leather

NOTE: *There are many of makes and models out there and not all are created equal. *If you plan to bring single boots, they must have at least a half-length steel shank, be thoroughly waterproofed, and be warm enough for temperatures below freezing. Additionally, chemical toe warmers are required if you bring single boots (at least six toe-specific warmers). Please consult our Equipment Shop if you are uncertain about the acceptability of your chosen model.*

Climbing Equipment

Climbing Harness: For alpine climbing, choose a harness with adjustable leg loops, and make sure it fits your body when wearing bulky clothing. A belay loop, gear loops, and light padding on the waist are desirable features.

Weight: 6 - 16oz / 170 - 453 grams

Climbing Helmet: Lightweight, well ventilated, and comfortable. Models with a plastic shell are more durable, but are heavier than all foam models. Must be UIAA approved for climbing.

Carabiners: Bring four total. Two must be large, pear shaped (or Mütter) locking carabiners. Two wiregate non-locking carabiners work well for the remaining two.

Ice Axe: A variety of axes are suitable. Bring one that is 60 cm max – if you are over 6'. (50 cm to 55 cm preferred). A ‘positive clearance’ pick is preferred. Ice axe leashes are optional – we use them for technical ice climbing only

Ice Tool: Optional for Part IIa, Required for IIb/III. Bring one that is 45-55 cm length. 50 cm is the preferred length for most climbing. Easy-to-use leashes are recommended.

Weight: 16 - 25oz / 453 – 700 grams

Steel Crampons: Flexible or semi-flexible. New-matic crampons are preferred due to their ease of use. Only modern ‘step-in’ or ‘new-matic’ crampons are acceptable. Anti-balling plates are highly recommended. Older Scottish style strap-on crampons are not adequate.

Own Buy Rent

Own Buy Rent

Own Buy Rent

Own Buy

Own Buy Rent

Own Buy Rent

Own Buy Rent

Prusiks: These are specially tied loops of 6mm cord used for crevasse rescue. If you don't have a set of prusiks from a previous AAI course, bring three lengths of 6 mm perlon/nylon: 13 feet, 6 feet, and 5 feet. (Precut lengths are available for sale at AAI.) Cord thicker than 6mm will not work.

Own Buy

Trekking Poles: Two are required. Even if you don't normally use trekking poles, they are necessary to help with balance while carrying heavy packs on mountainous terrain and crossing streams.

Own Buy

Camping Equipment

Sleeping Bag: Bring a bag that is rated to around 0°F for Parts II/III. A 15°F is adequate for Part I.

Weight: 2.25 – 4 lbs / 1 – 1.8 kg

Materials: Down, Primaloft, Polarguard 3D

Own Buy

Compression Stuff Sack: Used to shrink your sleeping bag into the smallest size possible.

Weight: 2-4 oz / 56 – 110 grams

Materials: SilNylon, eVent, or similar

Own Buy

Duffel Bags: Bring two that are large and sturdy. Durable coated nylon is best. This will be tied on the back of a mule during the approach to base camp. This duffel bag should be 7000-9,000 cu. in. Models with wheels are not allowed.

Materials: Pack cloth, Cordura, ballistic cloth

Own Buy

Sleeping Pad: Bring two pads. You will be camping on sharp paramo grass and/or sharp volcanic rock, both of which can easily puncture inflatable pads. An ideal system is one closed cell foam pad and one lightweight inflatable pad. Bring a patch kit for inflatable pads.

Weight: 8 - 20 oz each / 225 – 565 grams each

Own Buy

Internal Frame Pack: 55-65 Liters is ideal. It should be comfortable for carrying loads up to 50lbs, but not be overly heavy itself. Make sure it will hold all of your personal equipment with room to spare for your share of the group equipment that will be divided during your expedition.

Weight: 3.0 - 6.5lbs / 1.6 – 2.9 kg

Volume: 5000 – 6000 cubic inches

Own Buy Rent

Trekking Pack: This is a 1500 - 2000 cu. in. daypack used for trekking and as a summit pack.

Weight: 24 oz or less / 680 grams or less

Own Buy

Personal Toiletries: Bring a toothbrush, toothpaste, floss, a small towel, hand sanitizer (bring 3-4 containers), biodegradable soap, and a washcloth. Bring one roll of toilet paper. We supply the TP while on the mountain. TP is a precious commodity in third world countries. You'll find that having a small personal supply for use while in and around La Paz will be nice.

Own Buy

Eating Utensils:

Spoon: Bigger is better. Lexan is lighter, but metals spoons are more durable. Consider bringing a spare if you go with Lexan.

Thermal mug: 16-20oz with a lid. A 16oz wide mouth Nalgene is a favorite amongst our guides.

Bowl: A lightweight Tupperware-type bowl is recommended. Avoid metal bowls, they are expensive, prone to tipping over, and make your food get cold very fast (or burn your hands when you are eating soup).

Hydration: 3 liters of water capacity minimum. Two solid 32oz water bottles, like a one-quart Nalgene, are required. Hydration bladders with appropriate accessories are recommended, though care must be taken to protect them from freezing.

Water Purification: Bring tablets or liquid purification. Bring at least 80 tablets or the equivalent. Filters are heavy and should not be used.

Other Essentials

Passport: Required. This must be valid for six (6) months after your scheduled return date.

Passport/Money Pouch: Bring a low profile money pouch or belt to protect your essential documents, credit cards, and money.

Sunscreen: With a Sun Protection Factor (SPF) of at least 30. For the fair skinned, the higher the SPF the better. Stick applicators allow you to apply without exposing fingers. Dermatone produces an effective 1” diameter stick as well as a translucent zinc oxide lotion. A couple of 1 oz. tubes are adequate. Only your face and, at times, your hands will be exposed. Several small containers are better than one large one.

Lip Protection: Bring 2 containers/applicators with the highest SPF available. Zinc oxide also works well (available in pharmacies) as do some models of “chapstick” that have SPF20 or higher.

Glacier Glasses: Choose a model with 100% UVA/UVB protection and side shields. If you have an extra pair, bring them too. *Note:* Those using contact lenses should also bring a pair of prescription glasses in the event that your contacts or solutions are lost or damaged by freezing.

Garbage Bags: Bring two or three large ones. They serve a variety of uses, especially while mules are carrying your gear. Trash compactor bag, if available, are more durable.

Own Buy

Own Buy

Own Buy

Own Buy

Own Buy

Have

Own Buy

Own Buy

Own Buy

Own Buy

Own Buy

Headlamp: Choose a small, high output LED model that runs on AAA batteries. Bring one set of extra batteries. Flashlights and older halogen headlamps are not acceptable.

Own Buy

Repair Kit: Include a Thermarest repair kit (for Thermarest pad users), crampon wrench and extra screws (if required), 10 to 20 feet of lightweight nylon cord, small sewing kit, duct tape (can be wrapped on water bottles or trekking poles), and a pack waist buckle.

Own Buy

Multitool: Any multitool similar to a Leatherman is great. These are used for emergencies, and for slicing cheese, salami, and opening packages.

Own Buy

Small Padlock: To fit through the zip sliders of the duffel to secure its contents. Buying a TSA-approved lock is highly recommended. Don't lock your bag when you check it through security at the airport.

Own Buy

Personal snack food: Bring no more than one pound of high-energy snack food for strenuous days. Energy bars like Power Bars, Cliff Bars, and Gu are preferred. Candy is widely available in Bolivia.

Own Buy

Personal Medical Kit: For sunburn, blisters, headaches, and minor cuts and scrapes.

Own Buy

Personal Medications: (notify AAI of any and all medications)

- 20 tablets of Tylenol, Ibuprofen, or Aspirin
- A few Benadryl
- If you are severely allergic to bees, or if you suffer from Asthma, please notify AAI and your guide regarding the location and presence of your epi-pen and/or albuterol inhaler.

Cuts & Bruises kit:

- 10 assorted Band-aids
- one 1 1/2 inch roll of cloth athletic adhesive tape
- 3 inch Ace bandage

Blister Kit. Bring a comprehensive blister kit. This includes:

- Plenty of Compeed, Bandaid, or Dr. Scholl's blister pads
- A packet of moleskin (note: some people are allergic to the glue on moleskin and other medical adhesives.)

The following drugs require a physician's prescription (except Immodium). Be sure to discuss the use and precautions for each drug with your doctor.

- Loperamide (Immodium) - For diarrhea.
- Acetazolamide (Diamox) - For prevention or treatment of Acute Mountain Sickness.
- Choose one of the two antibiotics below, depending on personal allergies.
 - Trimethoprim-Sulfamethoxazole (Bactrim or Septra)
 - Ciprofloxacin (Cipro)

NOTE: you cannot use codeine or sleeping pills at altitude.

Hand/Foot Warmers: Recommended for people that are susceptible to cold hands and toes. These should be small, disposable type products like the ones made by Grabber Mycoal. Bring at least six sets if wearing leather boots.

Own Buy

Water Bottle Parkas: These insulating jackets are for your water bottles to help prevent freezing. Bring one for each bottle.

Own Buy

Pee Bottle: 1-quart size minimum. A 2L collapsible Nalgene is recommended. Plastic bottles from the store such as Gatorade bottles can work well but the lids are less secure than a Nalgene. If you choose to bring one of these, use it carefully and make sure the capacity is adequate. Label your pee bottle well. Women must also bring a pee funnel; Freshette makes a tried and true model.

Own Buy

Optional Equipment

The items listed below are not required, although many are nice “luxury” items that can make your trip more enjoyable. Remember that a few ounces here and there add up to extra pounds on your back and knees during your expedition.

Buff: “Buffs” are a multifunctional neck gaiter that can substitute for a lightweight balaclava. Buffs are worn on the head more than any other item. They make a good facemask, and can prevent sunburned lips and tongues.

Materials: synthetic

Own Buy

Handiwipes: AKA the mountain shower. For personal hygiene and general use.

Own Buy

Bandana: These have many uses on the mountain.

Materials: cotton

Own Buy

Entertainment: Books, games, journals, cards, etc. are great for rest days and stormy days in the tent. Music players like mini-disc and MP3 players are popular because the device and media are small and relatively lightweight. Models with a hard drive (e.g. Ipod) do not work at altitude. Bring a car adapter for any electronic devices to charge on our solar panel.

Own Buy

Ear Plugs: Defense against snoring and high winds in the area.

Own Buy

Insect Repellent: Recommended. If bringing repellent look for more concentrated repellent in smaller containers. Pack it in a Ziploc bag to prevent contaminating other items in your pack.

Own Buy

Shorts: Lightweight shorts are nice for warm days.

Weight: 4 - 8oz / 110 - 227 grams

Materials: Nylon

Own Buy

Camera: We recommend small point and shoot cameras that can easily be carried in an outside pocket or small case outside your pack. If you can't comfortably and safely carry your camera outside your pack, even in bad weather, you'll miss the best photo opportunities. Though some climbers bring them, SLR cameras are not recommended because of weight and bulk.

Own Buy

Note: No battery powered, auto-focus cameras perform well in the cold. Digital cameras can work well but require extra care to protect them from the cold and elements. If bringing a digital camera, consider your battery needs. If your camera uses a proprietary lithium ion type you may want to bring an extra. If your camera uses AA or AAA batteries, use lithium batteries and bring one or two sets of extra batteries, more if you take a lot of photos.

T-shirt: Light colors are best. This shirt can be synthetic or cotton. If you plan to hike in it, synthetic is better. A cotton shirt can be a nice break from the synthetics while at camp.

Weight: 3 - 7 oz / 85 - 200 grams

Materials: Synthetic, cotton, blends

Own Buy

Nose Protection: Designed to protect your nose from the sun, this is a cloth nose guard that fits onto your glacier glasses. Try the fit on your sunglasses; they should fit well without pushing the frames off your nose.

Own Buy

Foot Powder: A very small bottle will allow you to treat your feet daily, keep them dryer, extend the life of your socks, and help you avoid blisters/rashes from chronic wet feet.

Weight: 1 - 2oz / 28 - 56 grams

Examples: Gold Bond, Dr. Scholls

Own Buy

Belay Device: Bring one if you have one, but you don't have to buy one for your course. If you do purchase one be sure to get advice on choices from our equipment shop.

Own Buy

Crazy Creek Chair: These are excellent for relaxing in while at base camp.

Own Buy

Ski Goggles: These should be dark and block 100% of UV light. If you wear prescription glasses, these must fit comfortably over your glasses.

Own Buy

Lonely Planet: Bolivia This book is the ideal reference for traveling in Bolivia.