



Monte Rosa

Alagna – the off-piste paradise in summer

I remember all the beautiful hikes close to the enormous Monte Rosa massive, encounters with local shepherds, nights in mountain huts, wild waterfalls and lunch breaks in the sun. But the strongest memory is the helicopter flight to Cabana Margarita, the highest located mountain hut in Europe. I feel as I am still sitting in the helicopter on my way to the roof of the Alps.

A small crazy looking Italian is maneuvering a helicopter smaller than the smallest car model made by Fiat. I am getting squeezed up against the window as we fit five people into the little machine. The acceleration is enormous when forest, almost instantly, is changed against ice-covered glaciers and black rock walls. Before we know it we are all jumping off a freely hanging helicopter just outside Cabana Margarita, more than 4500 meters above sea level. We hardly have the time to say "Ciao" before the helicopter disappears with a roar.

- He is crazy, says Andrea. Being an Italian mountain guide he is the perfect person to show us around in the Monte Rosa massive. I explore the little mountain hut together with our photographer Per Engman. The favorite spot is without doubt the balcony hanging out over Monte Rosas vertical east face. The heart beats faster as I lean out over the rail looking down on the valley of Alagna, over 3000 meters under my feet.

The view is astonishing. In front of me I can see many of the Alps highest summits. Snow covered mountains are mixed with green valleys and they have a close to magical glow in the morning light. Soon Andrea is pointing out all the summits he has either climbed, skied or snowboarded. We realize that our guide is far more crazy than our helicopter pilot. We all feel a bit weak because of the thin air in the high altitude, but finally we get going. Due to the risk of falling into crevasses we are all roped up as our competent guide leads us through an inferno of crevasses and snow bridges. On the way down we pass the legendary north face of Lyskam, we say "hello" to a big Madonna statue placed on one of the areas many 4000 meter high peaks and as the time passes by the pace increases. Soon we enter a green valley that wintertime is a part of the Alagna ski resort that leads us back to the little village where a farewell party is waiting for us. Saluti!

-Tomas Olsson, adventurer and skier

SILVA
Get out there™

Position N45°93'56" E007°85'17"
Alagna, Italy

Monte Rosa



0
10
20
30

Multi-Navigator™

Art.no. 21802-9, yellow

Art.no. 21802-901, grey



The Multi-Navigator™ tells you not only where you are but also where, when and why to go.

The Silva Multi-Navigator has been designed to perform in extreme conditions. Being able to operate down to -25°C is no good if the buttons are too small to operate with gloves on. Being able to operate under tree canopy is no good if you can't receive the satellite signals. Having an illuminated LCD is no good if the buttons are not illuminated. The Silva Multi-Navigator is a high performance navigation instrument. It works because it is functional. You can't play games on it because life is not a game.

Information whenever you need it - Big, high contrast LCD with backlight means you can get information instantly, in poor light, in a blizzard, in a sandstorm or at night.

Information wherever you need it - The powerful receiver makes reception possible in areas and conditions where others may fail.

Battery life or death. Battery longevity can mean the difference between life and death. The Silva Multi-Navigator includes an electronic compass and is so frugal with power you can navigate for up to 150 hours on just two AA batteries.

The one button GPS - Most people will use their GPS for finding their way back to where they started. We've made it as simple to do as it sounds. Press a button once to automatically store and display your "home" position. That's it. Pure and simple.

Intellicompass - Intelligent Electronic Compass Navigation. The Silva Multi-Navigator features a built in electronic compass that works in the same way as a traditional compass by detecting the Earth's magnetic field. It uses extremely low power and will function stationary and on the move. It automatically compensates for the local magnetic declination to give a true compass direction, every time. Just two AA batteries will provide navigation for up to 150 hours. Highly accurate Altimeter. If you're going high, you need to know how high. Measurement of Altitude by GPS is only accurate to plus or minus 30 metres. The Silva Multi-Navigator has an on-board altimeter which is accurate to within 1 metre.

Forward thinking Barometer - Knowing where to go is one thing, knowing when is another entirely. By tracking and recording the barometric pressure the Multi-Navigator is able to provide a weather forecast, enabling you to avoid walking into a storm.

Optional accessories

Navigational Software compatibility

The Multi-Navigator™ is compatible with many leading GPS Software on the market.

DGPS-cable

Connect to a DGPS receiver for increased accuracy of position.

Art.no. 22081

Mounting bracket

Same as in Vehicle kit also sold separately.

Art.no. 21912-1

Optional accessories



Global Map Planner™

PC Software for planning your trip. Import scanned papermaps and up/download waypoints, routes and look at your track log in your PC. Can also be used for real time navigation. Global Map Planner™ comes complete with data cable.

Art.no. 21931-1

External battery cable

Need continuous navigation for hours and hours? With this cable and a rechargeable Ni-MH headlamp battery (see headlamp section) you have the solution!

Art.no. 21120

PC interface cable

Here is the data cable sold separately for those who like to use the Multi-Navigator™ with another compatible software. For the latest list of compatible softwares visit:

www.silva.se.

Art.no. 21946



Vehicle Kit

Mounting bracket and a 12V-power cable with cigarette lighter adapter for

use in a 4WD, ATV, snowmobile, balloon etc.

Art.no. 21930-1



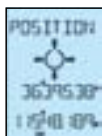
Learn more about the Multi-Navigator by watching the movies at www.silva.se



GPS navigation with clear, directional information. Store up to 1000 waypoints in 10 routes.



Electronic compass with one-degree resolution cardinal and inter-cardinal points.



12 Channel GPS Receiver shows position.



Altimeter detects differences down to 1 metre.



Home at the touch of a button. Finding your way back is as easy as pressing a single button, essential in an emergency.



Weather forecast in 5 levels from 'Sunny' to 'Stormy'.



Compasses

● Ranger



Ranger 15

Probably the most used compass on expeditions all over the world! RANGER 15 has been on the top of Mount Everest as well as in rain-soaked tropical jungles. It is a partner that can be trusted in the worst conditions!

Large sighting mirror, rubber feet that grip the map when working to and from the map, and map measuring scales mm/inch 1:25k and 1:50k. Model RANGER 15TDCL has declination adjustment and a clinometer for measuring vertical angles.

Art.no. 34896, 15 T

Art.no. 34917, 15 TDCL



Ranger 3

A classic base plate compass also used by defence forces around the world. Built in magnifier for detailed map reading. Luminous stripe on the needle. Map measuring scales mm, 1:25k and 1:50k.

Art.no. 34820



Ranger 27

Small in the pocket but big in the outdoors! RANGER 27 has everything you need from a mirror-sighting compass and more! Built-in sun-watch and a pin-on jacket function for hands-free use. The hunters favorite compass! The perfect spare compass for every navigator.

Art.no. 34952

● Field



Field 7

Probably the worlds best selling compass model! The small size and the rounded back of the base plate makes this compass an ideal youth/beginners compass for all kind of land navigation.

Map measuring scales mm, 1:50k and 1:25k. Declination scale inside the capsule.

Art.no. 34855



Field 26

A full-function mirror-sighting compass at a very attractive price-point! Large sighting-mirror and mm/inch map measuring scales. Lightweight and compact design. Perfect for land and sea navigation where accurate sightings are needed. It floats!

Art.no. 35134



Field 11

The perfect forest and sailing companion for all ages. Shows the main directions with the cardinal points in the capsule. Built-in safety whistle.

Art.no. 35334-2001

Compasses

● Expedition



Expedition 54

Top of the Silva range of traditional base plate compasses. It has an unique precision sighting system, which allows for bearings accurate to +/- 0.5 degrees to be taken! Add the same map measuring scales and silicon grip feet, as on RANGER 4, and you have a top-of-the-range compass for the advanced user!

Art.no. 35852-1011



Expedition 4

The "full-size" base plate compass for experienced navigators. Used by different defence forces around the world. 1:25k, 1:50k, 1:63.36k, mm and inch map measuring scales. Luminous points for navigation in the dark.

Art.no. 35692-1011



Expedition 25

The mirror-sighting compass with "all" the features required by professional users such as geologists, engineers, defence forces etc. Direct access battery illumination and a bubble level for accurate horizontal adjustment. Clinometer and declination adjuster.

Art.no. 35942-6041

○ Adventure



58

A vehicle compass specially designed for 4WD and any small craft including motor boats. Built-in illumination of the compass rose and deviation compensator [to compensate against surrounding magnetic fields that influence the compass].

Art.no. 35730-0651



70 UN

A unique combination of a steering compass and a sighting compass. When mounted in its holder it serves as a steering compass for sea-kayaks, micro-lights, boats and vehicles. Click it out and the next second you have a sighting compass for taking quick bearings in the field, in the air or at sea.

Art.no. 35014, 70 UN

Art.no. 35014-1141, 70 UN with battery illumination



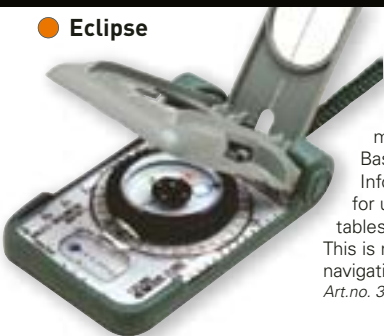
58 Kayak

A compass designed for kayaking. Clips on by straps, to the deck of the kayak.

Art.no. 36528-0601

Compasses

● Eclipse



Eclipse 99 Pro

The Flagship among the ECLIPSE compasses. A one-handed operation mirror-sighting compass. Has built-in clinometer for measurement of vertical angles/slopes. Base plate with magnifier and a set of InfoCards with Survival info, Instructions for use, map measuring scales, conversion tables etc are included in the rubber "shoe". This is not just a compass - it is a complete navigation system!

Art.no. 36351-4001 (English MN)



Eclipse 96 GPS

The perfect choice for the GPS-owner. Never trust the GPS alone as your navigation aid - always remember to bring a compass. The ECLIPSE 96 GPS includes international romer scales (1:24k, 1:25k, 1:50k, 1:62,5k, 1:63,36k) for plotting exact locations on the map with UTM co-ordinates (or similar). Delivered with a Lat/Lon / UTM template for plotting locations on maps with Lat/Lon system.

Art.no. 36502-0001



Eclipse 97 Grip

A prize-winning design, base plate compass. Ergonomically shaped base plate with a smooth rubber grip and a lanyard complete with a click-in safety whistle! Delivered complete with a clip-on attachment (clips on to belt, map etc)

Art.no. 36353-1001

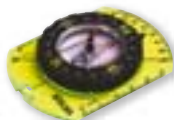
● Voyager



Voyager 8010

A base plate compass with a traditional type of base plate. Built in magnifier for detailed map reading. Declination adjustment facility. Map measuring scales 1:250k, 1:25k, 1:24k, 1:50k, 1:63.36k as well as mm and inch.

Art.no. 36580-5011



Voyager 9020

MM and inch measuring scales. Equipped with an inclination scale for determination of vertical angles.

Art.no. 36578-5001



Voyager 8040

Equipped with a gun-sight for accurate sighting of bearings. Lid with sighting mirror and thermometer. Built-in clinometer needle for accurate measurement of vertical angles/slopes. Magnetic declination chart on top of the lid.

Art.no. 36582-5001

Compasses



Carabiner 9

The small, handy compass with an integrated carabiner.

Art.no. 36692



Carabiner 10

The compass/thermometer combination compass.

Art.no. 36693



Carabiner 28

The replica of a "real" Silva-compass.

Art.no. 36694



Carabiner 40

The wrist model to be attached to your clocks watch band.

Art.no. 36695

Carabiner Compasses

Knowing the general directions is of invaluable importance no matter if hiking or visiting a city. The Carabiner Compasses are easy to bring anywhere, anytime - and the look good on your equipment too!



Compasses



Nomad - A compass with its own memory

The digital compass Silva Nomad has a memory, which means that the user can always see the set course along with any deviations from it. The Silva Nomad has display lighting, which makes navigation and outdoor pursuits easier, at any time of the day or night.

By using the Silva Nomad, the user can set a desired course to a destination in the terrain. It shows the degree to which the user is to veer to the right or left in order to keep on the correct course. At the same time as the user stores a course to a destination, the back bearing is automatically stored. This makes it easier for the user if he or she decides to return to the starting point.

The Silva Nomad can also be used at night. The compass has a clear display and background lighting. It also has an inbuilt spirit level, which means that the user can clearly see whether the compass is horizontal, for the greatest possible precision.

The compass, which is 9 cm by 5.8 cm, carries out electronic adjustment of magnetic declination. The Silva Nomad has a low battery level indicator and a lithium battery (included) which has an estimated life of up to 500 hours. The compass weighs 86 grams and a neck and wristband are included.

- Forward bearing and back bearing memory
- Off-course indicator to keep you on track
- Backlit digital display
- Adjustment for magnetic declination
- 1 degree resolution

Art.no. 46000



Altitude_4559M



Headlamps



LED Headlamps

M4

The latest addition to the M-Series, the M4, is a compact, lightweight and high performing LED-headlamp following the successful design concept as on the other M-models.

Due to its compact design, the M4 is the perfect choice when weight and space is crucial. Also ideal when high performance is required by climbers, back-packers, campers, and runners.

The new M4 has a rugged, splash-proof body housing three high-power LEDs. This LED technology provides a performance necessary for close range work (up to 20 meters) with extremely low power consumption. Up to 150 hours battery life and weights only 80g with batteries.



The M4 has four different light modes:

- Normal power - brings you the full power of the three LEDs.
- Medium power - long discharge time, medium light.
- Power save - perfect when used inside a tent.
- Blinking mode – ideal for attracting attention only in emergency situations.

Another important feature on the M4 is the tilting reflector that ensures the correct light angle regardless of the application.

Weight: 80g (incl. batteries)

Art.no. 57000

Headlamps

The new M-series compact headlamps offer a combination of a fantastic light and a very long discharge time for close range work by using LED technology. Compact size, low weight and rugged construction with a reflector technology, makes the M-series the ultimate choice for any headlamp user.

A headlamp is an incredible partner when doing different kinds of work in the dark. No matter where you are looking, you instantly have the light in the right direction. The M1 and M2 are a combination of a high power Halogen bulb for long range use and high power LEDs for close range use. Specially suited for advanced outdoor users, search and rescue teams, Multi-Sport teams and professional users.



M1
Top performance for the frequent user
Weight: 320g (incl. batteries).
Art.no. 57003



Charger and rechargeable battery pack included.







M2
Top performance for outdoor activities
Weight: 320g (incl. batteries).
Art.no. 57002



M3
The new standard for field performance
Weight: 320g (incl. batteries).
Art.no. 57001



				
M1	4 W Halogen 3 LEDs	75m	Rechargeable NiMH 1600mAh + charger (included)	~1h 45min LEDs: ~100h
M2	2.4 W Halogen 3 LEDs	50m	4pcs AA (LR6) Alkaline (included)	~2h 30min LEDs: ~150h
M3	2.4 W Krypton	50m	4pcs AA (LR6) Alkaline (included)	~2h 30min
M4	3 LEDs	30m	3 st AAA Alkaline (included)	~200h

High Power Headlamps

These are your options when you want to turn the night into day!

With Silva high-power headlamps, you are probably getting the best light from a headlamp available on the market. Outstanding performance due to the 10 Watt and 20 Watt bulb configuration. Large reflectors and long discharge times, due to the effective batteries, are important factors for users such as search and rescue teams, cross-country skiers, mountain bikers etc. Combine with any rechargeable battery and charging set.



480

Extremely lightweight and with a well-fitting construction. This is probably the most comfortable high-power headlamp on the market.

Weight: 190g.
Art.no. 57060-20



478

Extremely lightweight construction with a neoprene headband for a great fit. Can easily be mounted on a helmet with the adhesive Velcro pads included. This is the choice for the all round user who wants to use the headlamp with and without helmet.

Weight: 160g.
Art.no. 57058-20



471

Quick adjustable headset - just turn the knob on the back and it fits.

Weight: 220g.
Art.no. 57055-20



MICA

A light-weight headlamp with a well-fitting construction. Weight: 160g.

Art.no. 57059-20



Battery Carrier Comfort

New battery carrier with optimal fit. Material in comfortable foam with fabric coating and elasticated straps for fixing to the body. Adjustable fixing for the battery. Suitable for all Silva NiMH batteries.

Art.no. 57184



NiMH Batteries 4,5Ah - 9Ah - 9Ah

Art.no. 57102-45 (4,5Ah)
Art.no. 57104-90 (9Ah, flatpack)
Art.no. 57103-90 (9Ah, compact)
Art.no. 57101 (Spare rechargeable battery for M1)



Charging Sets

One for 4 - 4,5 Ah batteries and one for 7 - 9 Ah batteries.
Art.no. 57127-44 (4 - 4,5 Ah)
Art.no. 57127-70 (7 - 9 Ah)

Discharge times NIMH batteries

Art.no.	Ah	Charge time	10W	20W	Weight	Size (mm)
57102-45	4,5	20h	2h 40min	1h 20min	320g	90x70x18
57104-90	9,0	20h	5h 20min	2h 40min	630g	180x70x18
57103-90	9,0	20h	5h 20min	2h 40min	630g	90x70x36

Above discharge times are approximate and can vary depending on the condition of the battery, the temperature in the surroundings etc.

Outdoor Instruments

SILVA Atmospheric Data Center

Measuring all kinds of atmospheric data such as wind, temperature, altitude, barometric pressure and humidity is both a matter of interest but can, in different applications, being absolutely essential for different users. The ADC series (ADC Wind, ADC Summit and ADC Pro) are all specially constructed to meet the high demands of measuring the elements for different user categories.

Bring one the next time you prefer knowledge to guesses!



ADC Wind

Ever wondered about the wind and its effect on you and your performance?

The SILVA ADC Wind is the perfect instrument designed for outdoor people such as sailors, trekkers, Para gliders, skiers, golfers, sailors, balloonists, hang gliders, windsurfers and many others.

- Displays current, max and average wind speed (in km/h, mph, feet/s, or knots)
- Shows current temperature (C and F) and a past 24-hour temperature history
- Wind chill (current and min)
- Wind chill alarm
- Real time clock with alarm
- Time, day and date
- Chronograph with 50 lap times
- Race Timer
- Compass (one of the impellers blades works as a compass needle when held horizontally)

Art.no. 55250



ADC Summit

Featuring an air-pressure sensor on top of the functionality provided by the ADC Wind, this unit is the perfect companion when in the mountains and/or when an altitude/barometric pressure/weather tendency is required. The ADC Summit is designed for mountaineers, climbers, skiers (yes, it counts the number of ski runs as well!) and many others. Your performance data can be logged in the ADC Summit and downloaded through the ADC IR interface (optional accessory) to a PC.

Same features as ADC Wind plus:

- Altitude (current, min and max)
- Altitude Alarm
- Cumulative ascend/descend
- Ski-run counter
- Current barometric pressure (mbar, hPa or inHg) and a past 24-hour barometric history
- Weather forecast in 5 levels (Sunny, Partly Cloudy, Cloudy, Rain, Storm Warning)
- Data log memory (automatic and/or manual)
- IR data communication using accessory ADC IR interface (optional extra)

Art.no. 55251

Outdoor Instruments



ADC Pro

This is the top model in the ADC line. Having all the features the ADC Summit has and adding the humidity sensor, this is the unit for the professional/most-demanding users. The humidity sensor provides information such as RH (relative humidity), heat index, air density/relative air density, dew point, wet bulb – all functions for professional users such as engineers, painters, engine tuning as well as for the hobby-meteorologists, the mountaineers and demanding outdoor users.

Same features as ADC Wind plus:

- Altitude (current, min and max)
- Altitude Alarm
- Cumulative ascend/descend
- Ski-run counter
- Current barometric pressure (mbar, hPa or inHg) and a past 24-hour barometric history
- Weather forecast in 5 levels (Sunny, Partly Cloudy, Cloudy, Rain, Storm Warning)
- RH (Relative Humidity)
- Heat index
- Dew point
- Wet bulb
- Air Density/Relative Air Density
- Data log memory (automatic and/or manual)
- IR data communication using accessory ADC IR device (optional extra)

Art.no. 55252



ADC IR

The Software and Communication device that enables download of the logged data in the ADC Summit/Pro into a PC. The ADC IR is connected directly to the USB port on the PC and receives the data from the ADC Summit/Pro. The software graphically shows the logged data and it can also be exported in a text-file format for use in other applications such as spreadsheets etc.

Comes with a 1 m extension cable and software.

Art.no. 55253



Batterysaver Powerpak

- Charging 4 AA rechargeable batteries
- 12V adapter for charging most mobile phones, PDA, etc
- Powering small portable electronics such as FM-radio etc.
- Direct charging of the Silva M1 headlamp
- Maintenance of vehicle batteries
- Tilting solar panel for maximum sunlight exposure
- Power output max 12V/70mA or 6V/140mA

Art.no. 57121

Binoculars

You will regret leaving your Silva-binoculars at home when you are out there!

Whether you are a bird-watcher, mountaineer or backpacker, this range of outdoor-binoculars offers something for everyone. We have put great effort into creating rugged, compact and user-friendly designs. Perfect, when weight and space is a problem.



Eterna™ Compact

Our top model – fully comparable with the best binoculars on the market! These binoculars are designed to withstand really hard use. With an aluminium frame, rubber coating and roof prism they are rugged, compact and lightweight.

Waterproof, nitrogen gas filled • BaK-4 optics • Emerald Fire anti-reflex coating • Extended eye relief for those who wear glasses • Opti-Visor rotating eyepieces/ocular covers (pat pend) • Weight 350g • Size 121x95x45 mm.

Art.no. 810825 Eterna Compact 8x25

Art.no. 811025 Eterna Compact 10x25



Lite-Tech™ Compact

• Emerald Fire™ full multi-coating
• Bak-4 roofprism • Waterproof • Fogproof • Nitrogen filled • Extra wide neck strap

Art.no. 850825 Lite-Tech Compact 8x25

Art.no. 851025 Lite-Tech Compact 10x25



Lite-Tech™ Vision

• Solid rubber coated design • Anti reflection coating • Comes fully equipped with carrying case and an integrated neck-strap

Art.no. 850724 Lite-Tech Vision 7x24

Art.no. 850924 Lite-Tech Vision 9x24



Pocket

• 8x or 10x magnification • Anti-reflection coating • Solid rubber coated design • Comes fully equipped with carrying case and an integrated neck-strap

Art.no. 870821 Pocket 8x21

Art.no. 871025 Pocket 10x25

Accessories



Pedometer Alarm

Calculates steps, distance and calories. Built-in clock and a timer function. Equipped with a 105dB panic alarm! Perfect for walking/jogging on your own.

Art.no. 56020



Digital Map Measurer

The electronic map measurer from Silva is a multi-function instrument featuring map measurer, calculator, mini-flashlight, keyring and a compass.

Art.no. 55067



Pedometer Plus

The top-model, which shows steps, distance, calories consumption and also has a stopwatch function.

Art.no. 56014



Map Case Around

The Around is a foldable map case to give the map a compact size when carried in the outdoors. Inside the map case there are extra pockets for compass, pens etc. The size is 28x26 cm and when folded is 28x14 cm.

Art.no. 55049



Pedometer

The model that shows both steps and distance.

Art.no. 56013



Map Measurer

A traditional style map measurer with 8 scales: 1:750k, 1:500k, 1:400k, 1:200k, 1:100k, 1:50k, 1:25k, 1:15k

Art.no. 55066



Step Counter

The basic model for you who like to count the number of steps taken during your work, walk or run.

Art.no. 56012



I know my position on the map and would like to go to a lake in the forest, which I see on the map – how do I do?

The easiest way to set a compass course towards the lake is to use the Silva 1-2-3 System[©]. It is a simple and safe system used by navigators such as expeditions, youth organisations, mountain-guides, armies, orienteers etc all over the world and it is the main reason for Silva's market leading position.



- 1.** Place the compass on the map with the edge of the compass along the desired line of travel.



- 2.** Rotate the compass housing until N on the dial points North on the map. Check that the compass housing red/black north/south lines are parallel with the map's meridians.



- 3.** Hold the compass in your hand and turn yourself until the red end of the compass needle (North) coincides with the red arrow in the bottom of the compass housing. The front of the compass with the direction of travel arrow is now pointing towards your destination.



NB! If using a mirror-sighting compass – angle the mirror/lid approx. 45 degrees towards yourself and hold it with straight-arm in front of you. Now, at the same time looking in the mirror to see that the compass needle aligns with the red/black N/S arrow, sight above the mirror (using the sight) towards an object in the field in line with the direction of travel.



Learn more about the Silva 1-2-3 System[©] and compass use by watching the movies at www.silva.se

Guide to compasses

Does my compass work anywhere in the World?

Yes, the only thing you might consider is the fact that the compass needle can dip/tilt if you travel far north or south from the area in which you bought the compass (and for which area it is intended to be used). Normally this does not affect the accuracy, but for world wide travellers we recommend the Voyager series, which due to its construction/balancing of the needle can be used in most areas without affecting its performance.

Why does my compass show the wrong direction?

Because of deviation, the deflection of the compass needle from Magnetic North, by a magnetic field other than the earth's magnetic field.

One must always be aware that this can happen. Magnetic fields exist near knives, scissors, electronic instruments including mobile phones, radios, metal fences, tins, some rings and watches, binoculars(especially the hinge screw) and vehicles. When using your compass – try to stay clear of strong magnetic fields for the best accuracy.

How do I make sure that I care for my compass in the best possible way?

Try to store your compass away from extremely strong magnetic fields such as strong magnets, loudspeakers, etc which in extreme cases can demagnetise the compass needle. Avoid giving compasses hard knocks, and if needed, clean the compass in fresh water. Also avoid exposing the compass to extreme temperatures above +50 degrees Celsius.

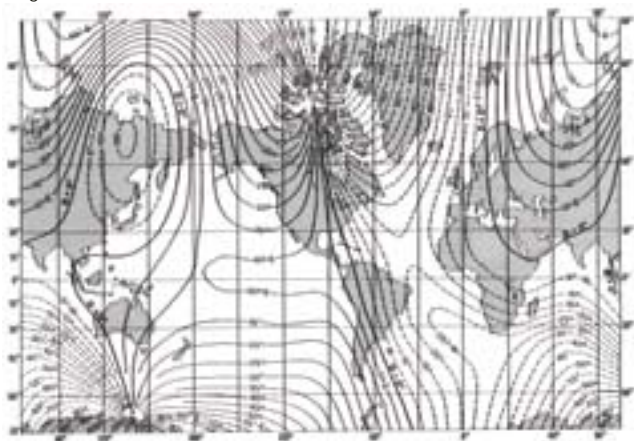
What shall I think about before leaving home?

Check the polarity of the needle, the general condition of the compass and that the compass functions correctly, so that you can be sure that you get the most out of your compass from Silva.

What is magnetic declination (variation)?

Magnetic declination is the difference in degrees, between Geographic North (to which the maps meridians are directed) and Magnetic North (to where the compass needle is pointing). It varies, depending on where you are in the world and can be found on most maps. Eastern declination means that you shall subtract the amount of the declination from the bearing obtained from the map to get a true compass course. Western declination means naturally that you should add the declination to the bearing. With some Silva compasses (such as model Ranger 15 TDCL, Expedition 25 TDCL-E or the Voyager series) you can compensate for the declination.

Magnetic declination



Binoculars FAQ

Size and Weight?

If the binoculars are to be carried around for long periods of time, it is a good idea to choose a compact model. The hiker will often find a full size pair too bulky and heavy, so they are often left at home. Lite-Tech™ Compact 8x25 and 10x25 are excellent compact models, as they are waterproof and robust! If you prioritize optical peak performance and lightweight, the choice would be Eterna™ Compact 8x25.

What is eye relief?

The ocular lens is the one through which the user sees the image in the binoculars. Eye relief is the distance from the ocular lens to the user's eye. The distance must be correct, in order to see a complete, clear and sharp image. If you wear glasses, you should choose a type of binoculars with eyepieces that can be pushed or folded in, because glasses offset the distance of the eye to the lens. Eterna™ Compact featuring fold-out/fold-in eyepieces

Do I need binoculars that are waterproof?

If the binoculars are going to be used in rain or in a marine environment it is wise to choose a waterproof model. The same is true if the binoculars will be subject to significant changes in temperature. Waterproof binoculars (preferably filled with nitrogen) keep out the surrounding air and its moisture and maintain a stable and dry condition inside the binoculars. This prevents condensation. When condensation dries out, it leaves droplet marks, which remain permanently inside the lenses.

How much magnification do I need?

If the binoculars are going to be hand held and also used on moving platforms (eg at sea) we recommend 7x or 8x magnification. The characteristics of 8x25 (Eterna™ Compact) are an excellent choice.

For outdoor use ashore it may be advantageous to choose more powerful magnification, depending on what you need them for.

How important is it that the binoculars can be used under poor light conditions?

A large exit pupil gives better light throughput and sharpness under difficult light conditions. The type of optics also play a role.

Eterna™ Compact are excellent binoculars for use at dawn and dusk.

How important is the price tag?

The optical quality of the binoculars matches the price. Bak-4 optics are more expensive and complicated to produce than standard Bk-7 optics. It takes a lot of work to produce good anti-reflection coated lenses which also affects the price.

If your top priority is optical peak quality we recommend Eterna™ Compact.

If you want to keep the price level down, but still get good and very price worthy binoculars, you should take a closer look at the Lite-Tech™ series. If you need small, light and easy to use binoculars, or an extra pair, Pocket should be your choice.



Lite_Tech™ Compact

Binoculars FAQ

What do the numbers mean?

For example 7x42:

"7x" means that the object in view appears 7 times larger than when visualised with the naked eye.

"42" is the size or diameter of the front (object) lens expressed in millimetres. A larger diameter lets in more light and makes the binoculars better in poor light conditions.

What kind of prism systems are there?

Traditional porro prism system and roof prism system.

Porro prism system binoculars let more light in and are larger and heavier and therefore most popular in areas like boating, where brightness is of key importance while the weight and form is not so important.

Roof prism system binoculars with their compact prism design are small and lightweight and therefore popular for outdoor users.

Different glass qualities?

There are two types of glass quality: Bak-4 and Bk-7.

Bak-4 is extremely clean and transparent and is reportedly the best binocular grade glass on the market. Bak-4 quality is achieved through a complicated and time consuming manufacturing process.

Bk-7 is the standard quality for glass in binoculars. It is less expensive to manufacture and therefore more popular for simple binoculars.

What is anti-reflection coating?

Stray light inside the binoculars spoils the image.

In order to enhance the viewed image, coating is applied to the lenses and/or prisms. It consists of a thin polarizing layer of magnesium fluoride. Each layer of stray light anti-reflection coating gives a brighter and sharper image. Our patented coating system Emerald Fire eliminates as much as 99.6% of the harmful UV- and IR-radiation.

What is field of view?

Field of view is the extent of the view you have through the glasses. Field of view is expressed at a range of 1000 meters. The greater the magnification, the narrower the field of view. Higher magnification and narrower field of view make binoculars harder to hold still without support.



Eterna™ Compact with casing



Headlamps FAQ

Why shall I have a headlamp?

Anytime you use a flashlight you would normally be much better off with a headlamp! There are several occasions when a headlamp is the perfect tool. Camping, climbing, hiking, running, professional work such as electricians, car repairmen, and search and rescue teams are all examples of frequent headlamp users.

What kind of model shall I choose?

If your primary goal is only light, you will in the high power range, probably find the most powerful headlamps on the market, suitable for professionals, training athletes etc. If you need a compact, long-lasting headlamp with a combination of strong light and extremely long discharge-time, we recommend one of the models M1 or M2. If you want long-lasting, compact and moon light light we recommend the LED-headlamp M4.

Rechargeable or alkaline batteries?

If you intend to use your M-series headlamp often and you also have the possibility to charge between uses, we strongly recommend M1, which has the powerful halogen bulb in combination with the long-lasting LEDs. If charging possibilities are limited, the choice should be the M4, M2 or M3 all of which can be used with alkaline or rechargeable batteries. The high power headlamps such as the model 478 require powerful rechargeable battery-packs.

I depend on a very long discharge time – which is my choice?

The M4, M1 and M2 have LED technology, which will give you approx. 100-150 hours of light. The light is soft and it is perfect for close range work.

Are the M-Series headlamps waterproof?

Yes, they are waterproof and dust proof to the IP56 standard ensuring use in the toughest of conditions.

Will the battery performance change in cold conditions?

For best performance when using any headlamp below 0 degree Celsius, we recommend Lithium, Ni-Cad or NiMH batteries.



Outdoor Instrument FAQ

How does an altimeter work?

An altimeter works like a barometer, by measuring changes in atmospheric pressure. It responds to pressure changes and re-calculates these into a certain altitude above sea level.

How accurate is a Silva Altimeter?

Provided it is recently calibrated, you will have an accuracy down to +/-1m!

Do I need to calibrate my altimeter?

Yes – since the altimeter is using recent and current air pressures for its calculation, it is important to calibrate the altimeter frequently (at known altitudes). It is good to know that a difference of 1mbar equals 8 meters altitude.

What is wind-chill?

Wind-chill is the effect of wind speed and temperature combined. It is important to consider the wind-chill factor when selecting clothing to wear during an expedition. The ADC Wind, Summit and Pro will provide you with the current wind-chill factor. Bear in mind, that at just 20km/h wind speed and an ambient temperature of -5°C, the wind-chill effect is -20°C!

How does a pedometer work?

A pedometer uses a sensor that registers every step you take. After having entered your stride length, the pedometer will calculate the approximate distance you have walked/run during your trip/exercise. Accuracy depends upon accurate calibration of your stride length. The average stride length along the walk, should equal the stride length used for calibration. Remember to attach the pedometer on your belt etc at your hip for best results.

Can I use the BatterySaver PowerPak to charge my mobile phone?

Yes, the PowerPak has a 12V adapter to which you can connect your 12Volt cig adapter charger. Note that the max output is 12V 70mA or 6V 140mA.

Do the Solar panels need direct sunshine to work?

No – they will charge at normal daylight as well, but naturally it is preferable to expose the panel to full sunlight for best performance.



Technical Data

Navigation

Waypoints: 1000 Waypoints

Routes: 10 reversible routes, each with up to 100 waypoints

Area calculation: Calculates the area in hectares/acres "inside" a route.

Track logging: 5000 trackpoints. Automatically records your trip and stores it for display using in a compatible PC software

Map datums: More than 100 local map datums

Grid systems: More than 10 including UTM, MGRS, plus Swiss, Australian, New Zealand, Netherlands, Irish, Finnish, Taiwan, Swedish and UK grids

GPS-Receiver

Receiver type: 12-channel parallel

Position update rate: 1 per second when in continuous GPS navigation mode

Differential GPS: Ready for differential corrections. (RTCM-SC104)

Antenna: Built-in patch antenna

Accuracy: 15 metres RMS. 1-5 metres RMS with DGPS

Electronic compass

IntelliCompass™: Automatic compensation for Earth's local magnetic declination

Accuracy: Better than 3 degrees

Resolution: 1 degree

Altimeter

Altitude: -700 m to +9200 m

Accuracy: Down to 1 metre assuming it is correctly calibrated

Resolution: 1 metre

Weather station - Barometer

Forecast: Shows forecast for 12 hours ahead as: Sunny, Partly cloudy, Cloudy, Rainy and Storm Warning

Barometric pressure range: 300-1100 hPa/mbar

Barometric history: Pressure changes over the last 36 hours

Accuracy: +/- 1.5 hPa

Data I/O

NMEA 0183 Out

Nexus PP Proprietary protocol

RTCM-SC104 DGPS Input

Miscellaneous

Internal power: 2 pcs AA batteries (not included)

External power: 6-28 VDC

Battery life: Typical compass navigation – Up to 60 days**

Typical compass/GPS navigation – Up to 100 hours***

Continuous GPS navigation – Up to 10 hours

Languages: More than 10 (including English, French, German, Spanish, Portuguese, Italian, Dutch, Swedish, Estonian, Czech, Norwegian, Finnish and Hungarian.)

Operating temperature range: -25°C to +70°C

**=15 seconds every 5th minute. Continuous barometer logging.

***= GPS position update every 30th minute, compass 15 seconds every 5th minute. Continuous barometer logging.

Dimensions

Size: 170x61x30 mm

Weight: 254 g (including batteries)

Standard accessories

Wrist strap

Interactive neoprene carrying case

Warranty

2-years

Multi-Navigator™ FAQ

How does the GPS System work?

The Global Positioning System is based upon 24 satellites that circle around the Earth. By receiving the signals from the satellites, the GPS receiver can calculate its position with an accuracy of down to a few metres. The GPS receiver needs to receive signals from at least 4 satellites simultaneously in order to calculate a position. The system works no matter where on Earth you are and 24 hours a day, 365 days a year.

Why should I buy a GPS?

A GPS is a valuable aid to navigation and in some situations, could prove essential to those who need precise POSITION, DIRECTION, ALTITUDE and SPEED. Using a GPS makes navigation even more interesting and fun. It also makes it much safer for all concerned.

What kind of GPS should I buy?

If your main concern is boating, or use in open terrain in normal temperatures, you will find that virtually all GPS instruments work more or less equally good. If you are a true outdoor user, with demands of functionality in extreme temperatures, under tree coverage and in extreme wet and snowy environments the Multi-Navigator™ is the perfect choice.

Can I use a GPS indoors, or in a car?

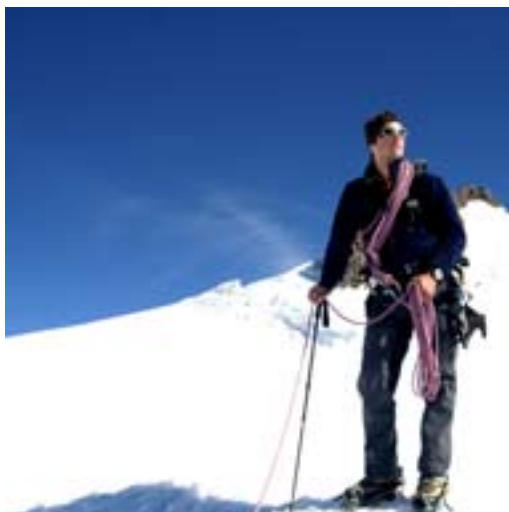
The GPS receiver needs to be in contact with the satellites in the sky and does not normally work indoors. However, in a car, where the GPS signal can travel through the windows, it does normally work fine. Remember though, that the GPS always works best with a clear view of the sky.

Does the Multi-Navigator™ have maps?

The Multi-Navigator™ is built for tough, off-road, outdoor use. A graphic display, which is needed to show a map, will not work in extreme temperatures. On top of this, the maps available today for these kinds of products are very schematic, showing major roads etc but not information about topography and other detailed information which is essential when in wild country and that can be found on the paper map.



Learn more about the Multi-Navigator by watching the movies at www.silva.se



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For more information about Alagna please visit:

www.guidealagna.com

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Official partners:



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SILVA
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