

COMPASS MANUAL

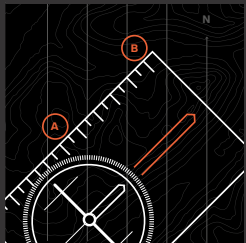
BASEPLATE COMPASSES

HOW TO NAVIGATE

ORIENTING THE MAP TO NORTH

The easiest way to use a map and compass together is to orient the map towards North. Simply align the map meridians with the compass needle so that "up" on the map is pointing North. Now everything on the map is in the same direction as on the ground. When travelling along your route, remember to keep the map oriented at all times. By doing this it will be very easy to follow your route since turning right on the map also means turning right on the ground! Properly orienting the map is quick, easy and the best way to avoid unnecessary mistakes during your trip!

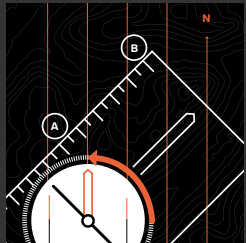
EASY AS 1-2-3



1-2-3

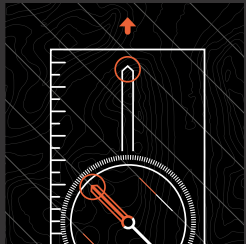
Place your compass on the map and use the **baseline** to make a straight line between your current position and your destination.

Make sure Direction of Travel arrow points towards your destination.



1-2-3

Turn the **compass housing** until the red part of the **north/south arrow** is parallel with the **map meridians** and points north on the map.



1-2-3

Lift your compass from the map and hold it horizontally in your hand. Turn yourself and the compass until the **red end of the needle** is inside the **red north/south arrow**. Now the **direction of travel arrow** will point towards your destination. Take a landmark and start moving. Enjoy!

MAGNETIC DECLINATION

When compass and map are used together it's important to know the local magnetic declination and how to compensate for it. Magnetic declination is the difference between Geographic North/True North (where the map meridians point) and Magnetic North (where the North end of the compass needle points). In areas with significant declination, adjustments must be made to walk a correct bearing. Information concerning the amount and direction of magnetic declination is shown on topographical maps with a diagram. Use an up-to-date map for current declination.

Declination can be handled either with a **fixed declination scale** or **declination adjustment** in the compass capsule. Read more further down in this manual.

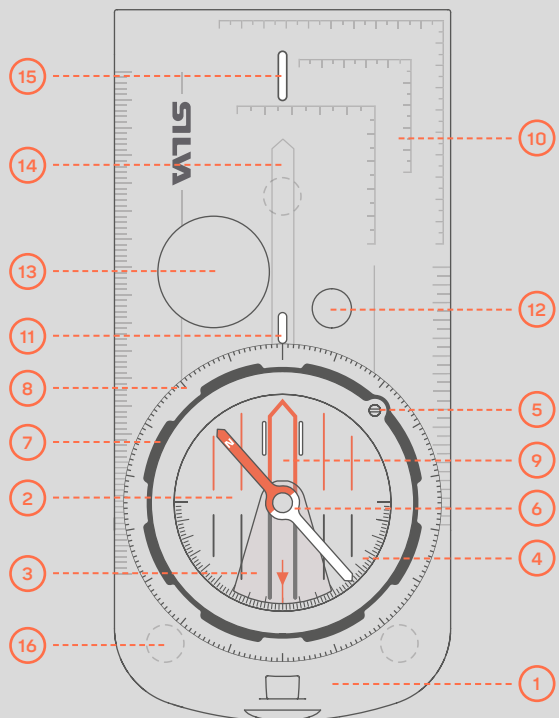
BEFORE HEADING OUT

- Always check that your compass is functioning properly before heading out.
- Never expose your compass to extreme temperatures (high or low) or to magnetic fields such as knives, mobile phones, radio speakers, magnets etc. Such exposure can cause permanent damage to the compass.

BASIC COMPASS FEATURES

BASEPLATE COMPASSES

The baseplate compass is a practical, simple to use, liquid filled compass that features a baseplate which is marked with a red arrow pointing along the long axis, and a rotating compass housing marked in degrees. Baseplate compasses are **ideal for taking quick bearings and map use**.



- 1 BASEPLATE
- 2 LIQUID FILLED CAPSULE
- 3 CLINOMETER*
- 4 DECLINATION SCALE (FIXED)
- 5 DECLINATION ADJUSTMENT*
- 6 COMPASS NEEDLE
- 7 TURNABLE COMPASS HOUSING (BEZEL)
- 8 GRADUATION RING / GRADUATION SCALE
- 9 ORIENTING LINES / ORIENTING ARROW (NORTH ARROW)
- 10 SCALES
- 11 INDEX LINE
- 12 STENCIL HOLE*
- 13 MAGNIFYING LENS*
- 14 DIRECTION OF TRAVEL ARROW
- 15 LUMINOUS MARKINGS/RING*
- 16 RUBBER FRICTION FEET*

* Features may vary between different compass models

COMPASS MANUAL

BASEPLATE COMPASSES

BASIC COMPASS FEATURES

BASEPLATE COMPASSES

1 BASEPLATE

Highly durable baseplate in transparent acrylic plastic. Use the edge of the baseplate to get your bearing. Most SILVA compasses has a curved up back end to make it sit more ergonomic in your hand.

2 LIQUID FILLED CAPSULE

The capsule is filled with anti-static liquid (customized formula) that ensures clear reading, fast settling time, perfect dampening, stability and accuracy of the needle.

3 CLINOMETER

The clinometer can be used for measuring slopes of terrain, heights, etc. Rotate the **Graduation ring** until "W" (270°) is at the **Index line**. Hold compass at eye level, on its side. The clinometer needle should move freely. Tilt the compass upward, with the terrain. Read inclination from where the inclination needle meets the **declination scale**.

4 5 DECLINATION SCALE (FIXED) / DECLINATION ADJUSTMENT

ABOUT DECLINATION

When compass and map are used together it's important to know the local **magnetic declination** and how to compensate for it.

Magnetic declination is the difference between Geographic North/True North (where the map meridians point) and Magnetic North (where the North end of the **compass needle** points). In areas with significant declination, adjustments must be made to walk a correct bearing. Information concerning the amount and direction of magnetic declination is shown on topographical maps with a diagram, identifying Magnetic North (MN) and the degree variance from True North (TN). Use an up to date map for current declination.



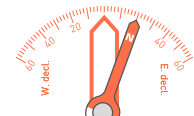
FIXED SCALE

Most SILVA compasses have a fixed declination correction scale inside the capsule to simplify the calculations required.

How to:

Identify the declination variance from your map. In this example, 20° east.

Follow the instructions in the SILVA 1-2-3 system. Before taking a landmark in step 3, turn yourself until the red end of the **compass needle** points to 20° on the "E.decl." scale. Keep the compass steady and turn the **compass housing** until the **North arrow** coincides with the red end of the **compass needle** once again. Now the **direction of travel arrow** will point towards your destination. Take a landmark and start moving.



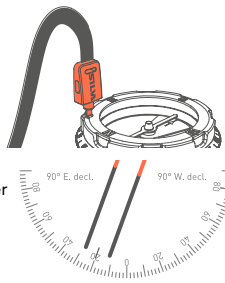
ADJUSTMENT SCREW

Some SILVA compasses have a declination adjustment screw, located on the **bezel**. A small screwdriver can be found inside the safety release of the included **lanyard**.

How to:

Identify the declination variance from your map. In this example, 20° east.

Turn the screw on the **bezel** until the bottom side of the **North Arrow** meets the 20° at the "E.decl." scale. Remember to use the **orienting lines** at the bottom of the capsule and NOT the **North Arrow** as map North reference lines when taking the bearing on the map. After you have adjusted your compass for declination, the **compass needle** still points towards magnetic north.



6 COMPASS NEEDLE

Swedish high quality, stainless steel, magnetic needle. The combination of a sapphire jewel bearing and a hardened steel pivot minimises friction, which in turn gives rapid and accurate movements. Magnetic North direction accuracy: 1 degree.

The red end points to magnetic north!

7 TURNABLE COMPASS HOUSING (BEZEL)

Use the turnable compass housing to set your bearing or when navigating with the SILVA 1-2-3 system. Some of our compasses are equipped with a rubber, tactile grip ring to make the housing easier to adjust.

8 GRADUATION RING / GRADUATION SCALE

The angle between true North and the **direction of travel** is called bearing (the direction from where you are, to where you want to go). The value of this angle can be read directly off the scale on the graduation ring. Our compasses have either a graduation scale divided into 360 degrees or 6400 mils. The Graduation ring is also marked with the cardinal points (N-S-E-W) on some models.

If you rotate the **graduation ring** to line-up the red north of the **compass needle** to the **North arrow**, a bearing can be taken from the **graduation scale** at the **index line**.

9 ORIENTING LINES / ORIENTING ARROW (NORTH ARROW)

All our outdoor compasses have red/black north-south lines and arrow in the **capsule** bottom ensure easy and safe settling. The lines and arrow are fixed within the compass housing, aligned to north on the **graduation ring** and designed to be aligned with the map meridians. Half the lines/arrow are coloured red to indicate north. The lines are used to align the compass housing with the map in step 2, when navigating with the SILVA 1-2-3 system.

10 SCALES

On the **baseplate** you'll find scales for measuring distances etc. on a map. The type and number of scales varies between each SILVA compass model. The scales and prints on most SILVA compasses are "hot stamped" to ensure extra durability.

MAP MEASURING SCALES

A map is a reduced picture of the terrain. The determined proportion between the distances on the map and the corresponding distance on the ground is called a map scale. To obtain the corresponding distance in the field, the distance on the map must be multiplied by the divider of the scale. The most common scales are 1:10 000, 1:15 000, 1:25 000 and 1:50 000. For example, the scale 1:10 000 means that 1 cm on the map corresponds to 10 000 cm = 100m in the terrain.

RULER

If the map scale is 1:50 000, and your compass has the corresponding **map measuring scale**, use this to measure distance.

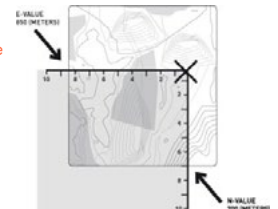
If your compass lacks the corresponding **map measuring scale**, use the regular Metric or Imperial Ruler found on the edge of the **baseplate**.

Example: If the map scale is 1:50 000, then 1 mm on the map = 50m in the terrain.

Example: If the map scale is 1:24 000, then 1 inch on the map = 24000 inches (2,000 feet) in the terrain.

ROMER SCALES

Use the Romer coordinate scales on the **baseplate** to measure distance or accurately work out a six-figure grid reference that lets you determine the coordinates of a known position on the map (or to determine the position of known coordinates on the map).



11 INDEX LINE

The index line is fixed beneath, or at the outer edge of the **graduation scale** as an extension of the **direction of travel arrow**. It marks the bearing you set by rotating the **compass housing**.

If you rotate the **graduation ring** to line-up the red north of the **compass needle** to the **North arrow**, a bearing can be taken from the **graduation scale** at the **index line**.

12 STENCIL HOLE

The **baseplate** has one or several stencil holes for adding map symbols/marking positions on map with pen/pencil – increasing precision.

13 MAGNIFYING LENS

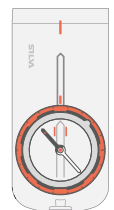
Built in magnifier for detailed map reading.

14 DIRECTION OF TRAVEL ARROW

The direction of travel arrow shows the direction that you want to travel along or the bearing you are taking. It is fixed parallel to the sides of the **baseplate** and aligned with the fixed **index line** on the edge of the compass housing.

15 LUMINOUS MARKINGS/RING

Our compasses have luminous markings and/or graduation ring for compass reading in the dark. Once activated by daylight/flashlight they will give light up to 4 hours of light. The markings are commonly placed at the **direction of travel arrow**, the **North arrow**, the **index line** and north part+pivot of the **compass needle**.



16 RUBBER FRICTION FEET

Silicon rubber friction feet for precision map work. Placed at the bottom side of the **baseplate**.