SUUNTO MC-2, MC-2G COMPASSES

USER GUIDE

2025-06-26

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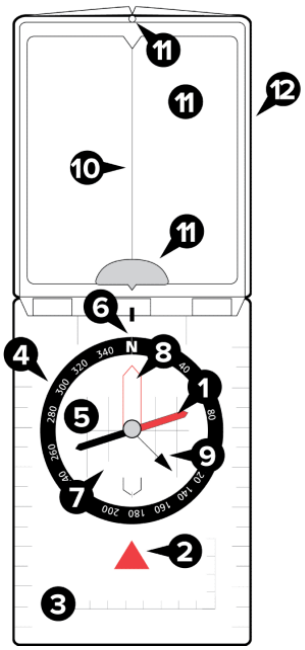
1. Compass anatomy



1. Needle with red end that points to magnetic north
2. Direction-of-travel arrow for pointing to target on map and when moving
3. Baseplate with straight edges and scales for working on map
4. Bezel with directional scale for using as a protractor
5. Rotating capsule for setting direction to target
6. Bearing index for reading numerical bearing from bezel
7. Orienting lines used to align capsule with meridian lines on map
8. Orienting arrow for aligning with needle to find direction to target
9. Clinometer (select models only) for measuring vertical angle
10. Center line for aligning target and compass
11. Notch, mirror and hole for precise sighting of an object
12. Slope ruler for measuring the steepness of the terrain on the map

2. Orient the map

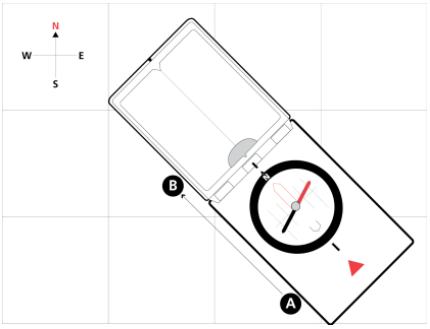
To better understand your surroundings, you should use your compass to first turn your map in the right direction. This ensures the geographic features around you are in the same general direction as you see them on the map.

1. Hold your compass level and look at the red end of the needle to see where north is.
2. Turn the map so that the northern upper edge is pointing north.

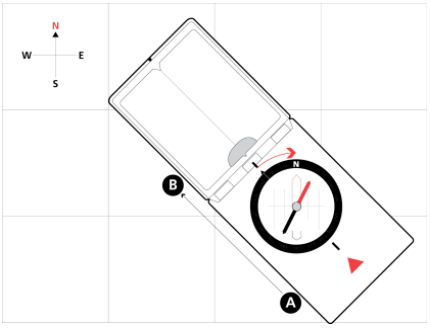
3. Navigate with map and compass

When navigating with a map and compass, you are first determining a direction of travel on the map and then transferring that direction to the real world.

1. Place the compass on the map between your starting point (A) and your target (B).

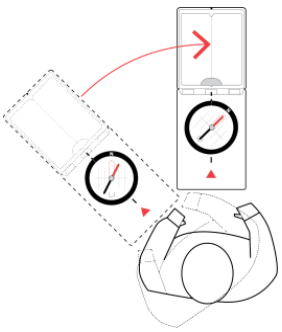


2. Turn the capsule until the orienting lines are parallel to the meridian lines on the map with N pointing north.

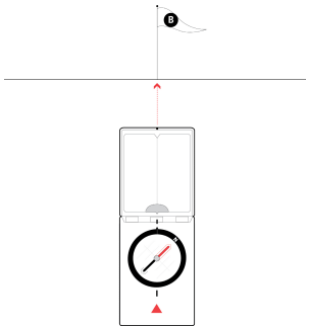


3. Hold compass level at waist height and turn yourself until the needle and orienting arrow are aligned.

   NOTE: *Compensate for declination. See 5. Declination correction.*



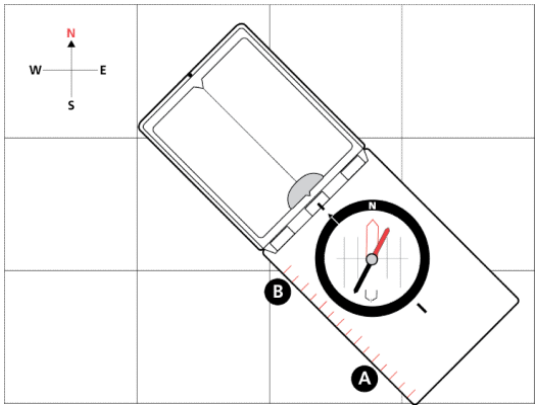
4. Select a visible target in front of you to help you maintain your direction while traveling.



5. Follow your progress by comparing landmarks to the map.

4. Measure distance on map

Your Suunto compass has multiple scales on the baseplate to help you measure distance on a map. Be sure to use the same scale indicated on your map. If the map scale is not on your compass, use a general scale (cm or inch) to calculate distance.



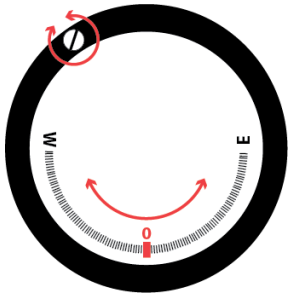
5. Declination correction

The meridian lines on a map indicate the direction toward true north while your compass needle indicates the direction toward magnetic north. The angle between these two directions is called magnetic declination.

Before navigating you should check your local magnetic declination from a trusted source, such as a recent map or the NOAA website. If the magnetic declination is more than a few degrees, you must compensate for it when navigating.

If your Suunto compass has adjustable declination, do the following at the start of your navigation.

1. Turn the compass over.
2. Insert the metal key into the adjustment screw.
3. Turn the key until the declination indicator is the correct number of degrees east or west of 0°.

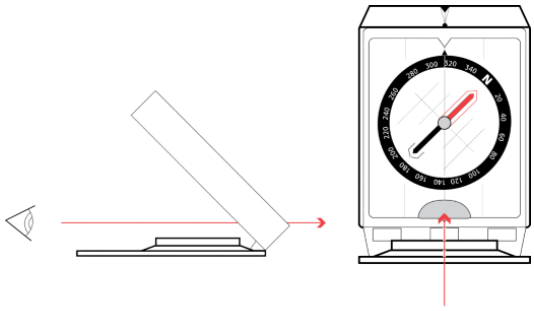


6. Sight a bearing

A bearing is the angle between direction to north and the direction to a target. This can be used for example in communication directions with others or when finding your location.

1. Open the mirror and hold the compass at eye level so that you can read the capsule from the reflection.
2. Align the target with the sighting notch or hole, keeping the center line on the mirror in line with the center of the capsule.
3. Hold the compass steady and turn the capsule until the orienting arrow and needle are aligned.

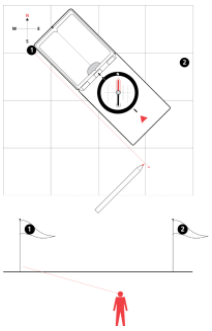
   NOTE: *Compensate for declination. See section 5. Declination correction.*
4. If the numerical bearing is needed, read it from the bearing index.



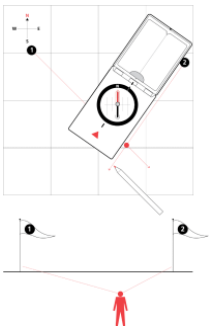
7. Find your location

You can sight two or more objects and use triangulation to accurately determine where you are.

1. Find a visible object that is identifiable on your map and follow steps 1-3 of the '*6. Sight a bearing*' procedure.
2. On the map, place the long edge of the compass on the object (1).



3. Turn the compass until the orienting lines and meridian lines are parallel and draw a line from the object.



4. Choose a second object and repeat steps 1-3.

The intersection of the two lines indicates your position, and the closer the angle between the intersecting lines is to 90°, the greater the accuracy.

8. Signal with a mirror

A mirror enables signaling over long distances by flashing sunlight reflected in the mirror.

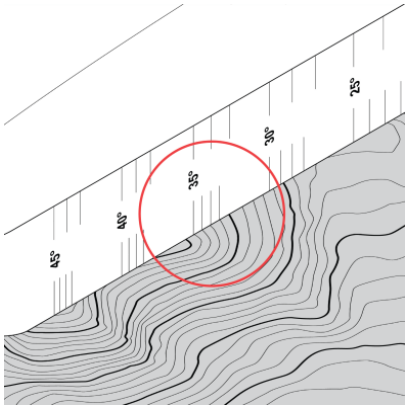
1. Hold two fingers in a V-shape at arm's length so that you see the target between your fingers.
2. Keep the open compass mirror upright close to your eyes and turn the mirror until the reflected sunlight hits your fingers.
3. Rotate the mirror left-to-right to create a flashing signal in the desired direction.

9. Measure steepness on map

Select models only.

To measure the steepness of the terrain on the map, your Suunto compass has slope rulers on the sides of the mirror lid. You should find the line interval on the ruler matching closest to the contour intervals of the area on the map you want to measure.

Note that the scale and the contour interval of the map must match or be multiples of the scale and the contour interval of the slope ruler.

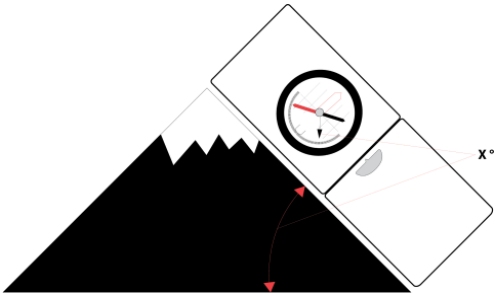


10. Measure slope incline

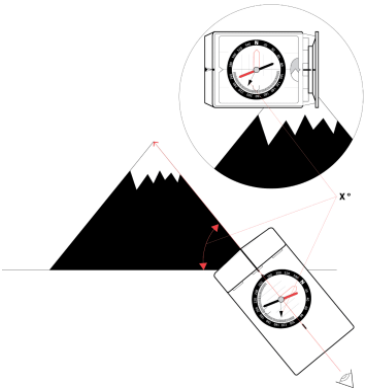
Select models only.

The scale for declination correction on the back of the capsule also functions as a scale for the clinometer.

1. Turn the capsule so that the bearing index is at 270° (due West) and tilt compass on its side with the declination scale downwards.
2. If you have a clear view across the slope, align the compass to the slope with the back of the compass is facing you.



3. OR, if you have a clear view up or down the slope, sight the top or the bottom.

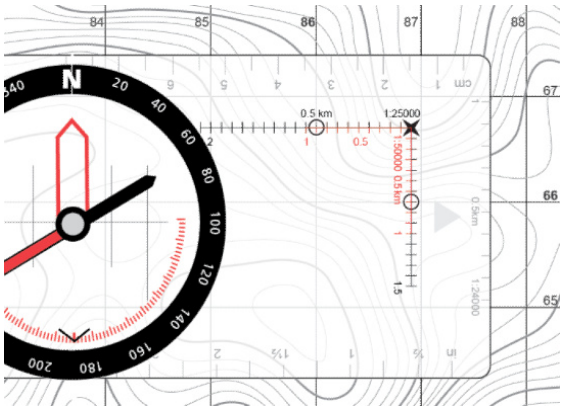


4. Read from the clinometer needle to get approximate inclination reading.

11. Find UTM coordinates

Select models only.

With the Romer scale on the baseplate, you can determine locations within the grid of your UTM map accurately. The UTM coordinate of a location can be presented in full or abbreviated as a six-figure grid reference. The position of the star mark in the sample illustration is 35V 686900 6966700, or 869667 in short. In this reference, 86 is the easting grid line number and 66 is the northing grid line number on the map, while 9 and 7 (circled) are the values where the Romer scale crosses the grid lines. This means that the location is 9x100 m east of the vertical grid line marked 86 and 7x100 m north of the horizontal grid line marked 66.



12. Care

Use only fresh water and mild soap for cleaning. Clean your compass regularly.

Operating/storage temperature: -30° C - +60° C / -22° F - +140° F

⚠ ***CAUTION:*** *DO NOT APPLY SOLVENT OF ANY KIND.*

⚠ ***CAUTION:*** *DO NOT APPLY INSECT REPELLENT.*

⚠ ***CAUTION:*** *DO NOT KNOCK OR DROP.*

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