The Mountaineers

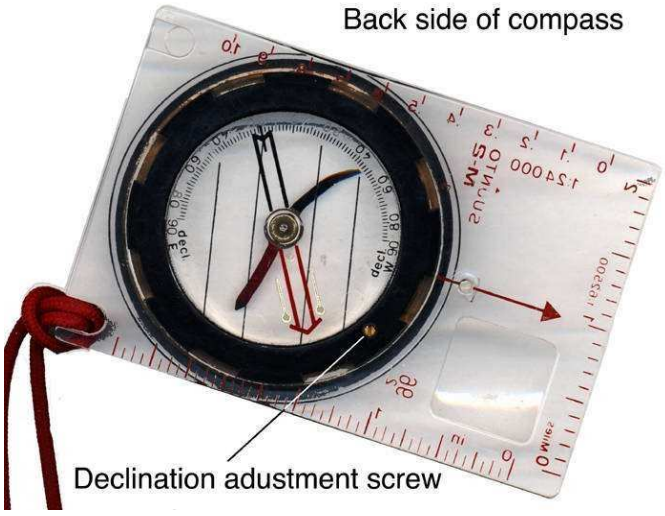
Wilderness Navigation

Compass Requirements

1. **Adjustable Declination**: A move-able orienting arrow, which provides a built-in declination adjustment. If there is one feature which simplifies map and compass work, this is it. Compasses with adjustable declination can often be identified by the presence of an adjustment screw on the back of the housing (on the underside of the compass, look at the bezel - the screw is usually brass or copper colored). <u>Avoid the keyless models!</u>

2. **Sighting mirror:** Full size. The bigger the better. Beware of smaller models.

3. **Transparent rectangular, large base plate** *with a direction of travel arrow*. Transparency allows map features to be seen underneath the compass. The rectangular shape provides straight edges and square angles for plotting and determining intersections on the map.



4. **Meridian lines**: Marks on the bottom of the interior of the circular compass housing, marked with parallel 'meridian lines', which rotate with the bezel when it is turned. The meridian lines run parallel to the north-south axis of the bezel, however turned. Meridian lines are necessary for plotting and determining intersections on the map.

5. **A full-length declination arrow or parallel lines** (see illustration above): Some compasses have a pair of short parallel lines towards the north end of the bezel, which are intended to serve the general purpose, but don't provide an adequate reference for needle alignment in precision situations.

6. **Bezel graduations**: A bezel (the rotating housing) at least 2" in diameter and marked clockwise from 0 to 360 degrees in increments of two degrees or less. (Some compasses are numbered backwards, in a counterclockwise direction. Others are numbered in quadrants of 90°. These are not suitable for use in this course.) In general, bezels should be large to allow use while wearing gloves - the larger size also improves accuracy. While selecting your compass, make sure you try adjusting the bezel to several settings. The bezels center should be firmly located so that it does not slide around the center post while being rotated. Some compasses allow too much play between the bezel and the base plate, detracting from the accuracy of measurements. Check before buying!

Additional Recommended Features

- A liquid-filled housing is **highly** recommended to reduce erratic needle movement. In some cases, steadying the compass needle can be difficult.
- An inclinometer: a gravity driven arrow that allows you to measure slope angle.
- A luminous dial.

K & R Alpin Mirror Compass

K & R Sherpa BW2 Mirror Compass

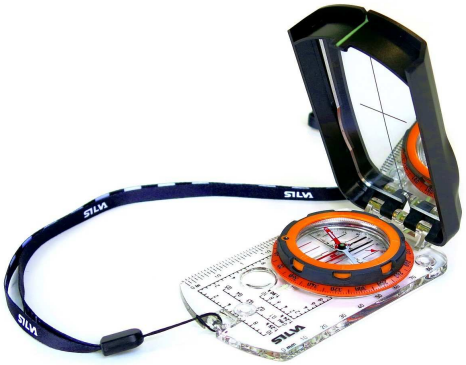
Suunto MC-2/360/IN/D/NH Mirror Compass

Suunto MC-2 G USGS Mirror Compass

Silva Ranger CL Mirror Compass

Silva Ranger CL Hi-Vis Mirror Compass

Silva Ranger 2.0 Mirror Compass



Silva Ranger 2.0 Mirror Compass - Orange