THE NAVIGATION CORNER:
COMPASS BASICS

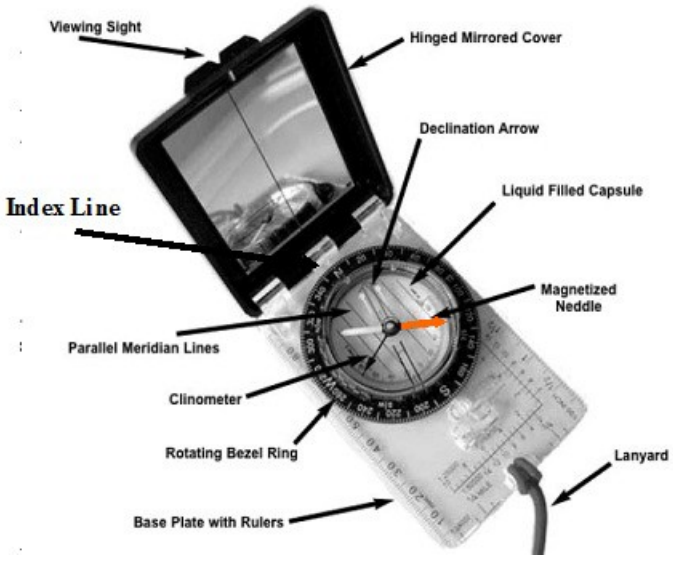
By Bob Myers, LTC Navigation Chair

> "Always carry a detailed topographic map of the area you are visiting, and place it in a protective case or plastic covering. Always carry a compass." *Mountaineering: The Freedom of the Hills*, p. 34 (8th ed. 2010).

A map and compass are high on the list of the 10 essentials of mountain travel. Yet many participants on Sierra Club outings bring neither with them. Instead, they rely on the leaders for getting them to their destination. This is a mistake. The best way to improve your navigation skills is to use a map and compass on a regular basis. Bring them along on the outing and improve your skills. The leaders and other participants are usually happy to teach a novice new skills at rest stops along the way. As an added bonus, if you get separated from the group, you will know how to find your way.

For those who don't yet have a compass, this article will look at the features of a compass and the types of compasses available for purchase. In the next issue we will explore how to take bearings with a compass.

Compass Features



Rotating Bezel/Azimuth Ring – Circular housing that rotates within the compass base; marked with degrees from 0 to 360 that encircle the outer edge of the compass capsule.

Magnetic Needle – The red end is attracted by magnetic force and always points to Magnetic North (not True North).

Parallel Meridian Lines – Lines at the bottom of the azimuth ring that parallel True North.

Orienting/Declination Arrow – The north-south arrow, which is slightly wider than the magnetic needle; used to box" (surround) the magnetic needle when taking a bearing. On compasses with adjustable declination, the orienting arrow will point to the magnetic declination value you set.

Index Line – Mark on the front of the compass baseplate where you read the indicated bearing.

Direction of Travel – On mirrored compasses, the sighting mirror points in the direction of travel. On baseplate compasses, there is often an arrow pointing in the direction you walk toward or the object in your sight.

Baseplate – A see-through plate that functions as a ruler and protractor.

Declination Adjustment Screw – Small screw on Bizel ring or underside of Bizel ring used to set declination.

Clinometer – An added feature on good compasses that allows you to measure the angle of a slope.

Lanyard – Can be used to measure the distance of a trail. String along the trail to be traveled and measure the portion of the string used against the appropriate map scale.

Types of Compasses

Minimal Baseplate Compasses: These basic compasses will allow you to take bearings in the field and on the map. However, they are harder to use because they lack declination adjustment and a sighting mirror for more accurate bearings. Not recommended – but better than nothing.

Brunton 7DNL Compass – *$12
Silva Explorer – $18
Suunto A-10 Compass – $14

Minimal Sighting Compasses with no declination adjustment: Some people buy this type of compass mistakenly assuming that since it has a mirror it must also have adjustable declination. Not recommended – but better than nothing and better than the minimal baseplate compasses.

Brunton 26DNL Compass – $17
Silva Trekker Type 20 Compass – $23
Suunto MCB Amphibian Compass – $30

Baseplate Compasses with declination adjustment. Compasses with adjustable declination are more accurate than those without this feature. Some compasses have a declination scale to assist with correction; this is not the same as adjustable declination.

Suunto M-2D Locator Compass – $24
Suunto M-3D Leader Compass – $34
Suunto M-3G Global Compass – $56

Full-featured Sighting Compasses: These compasses have declination adjustment, sighting mirrors, and clinometers to measure slope. Though more expensive than other compasses, these are the best for wilderness navigation. This is the type of compass we recommend in our navigation program.

Brunton 15TDCL Compass – $42
Silva Ranger CL Compass – $38
Suunto MC-2D Navigator Compass – $56
Suunto MC-2G Global Compass – $84

***2017 prices**