

**SUUNTO SK-8**  
**DIVE COMPASSES**  
**USER GUIDE**

# COMPASS ANATOMY



1. Compass card with triangle that points to magnetic north
2. Rotating bezel for setting direction to target
3. Sighting line and window for reading precise bearing
4. Orienting indicators for maintaining direction of travel

## ORIENTATION AT THE DIVE SITE

To better understand your surroundings, you should use your compass to orientate yourself already on the surface. Underwater navigation is demanding, so using the compass already at the shore or on the boat helps you better understand your movement underwater.

Before diving, check the shoreline or boat position relative to magnetic north and your planned dive route. This helps you underwater to navigate towards the ascent place where you want to end your dive.

If you are using a map you should 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 triangle to see where north is.
2. Turn the map so that the northern upper edge is pointing north.

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.

You should check the magnetic declination for the dive site 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 with a compass.

## **SIGHT A BEARING**

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

1. Hold the compass level with the sighting window facing you.
2. Align the target with the bearing line.
3. Read the bearing from the sighting window.

NOTE: Compensate for declination.

At the dive site, you should establish your general orientation by sighting bearings of your underwater navigation aids, such as a shoreline or reef. Memorize or make note of these bearings to use while diving.

## **MAINTAINING DIRECTION OF TRAVEL**

With practice, you can maintain your direction of swimming over long distances using your Suunto dive compass.

1. Find a visible target in the direction you want to travel.
2. Hold the compass level in front of you with sighting window facing you.
3. Turn the bezel until the orienting indicators are aligned with the triangle.

Swim towards target and check your direction when the target is not visible by holding the compass as in step 2 above. If the orienting indicators and triangle are not aligned, turn yourself until they are aligned and continue travelling in the corrected direction.

Do not use the compass before you come to rest and can align the compass horizontally with the aid of a flat bottom, a glimpse of the surface, your own bubbles going up, or the pull of gravity. In poor light or very murky water, swing the compass slowly from right to left to ensure the compass card moves freely before checking your bearing.

## **NAVIGATION AIDS UNDER WATER**

The dip and stratification of rocks on the shore can often be followed over large areas under water. Sand ripples may also form long lines parallel to the shore that can be used for maintaining your direction of travel.

The direction of currents should be noted by their effect on algae or drifting particles. Use the compass to check the bearing of the current.

Swimming in a straight line along the bottom is greatly facilitated if you can line up three distinctive targets in your line of vision. As you reach the first target, line up a new one farther away, so that you again have three points determining your course. This way you can counteract the effect of a side current.

In clear water, the compass can be used to swim in a search pattern over a fairly large area. Count your swim kick pairs (each left or each right kick), swimming on one of the cardinal directions (North, South, East, West).

Count up to 100 kick pairs (roughly 100 meters), turn 90 degrees, swim a few kicks, then turn 90 degrees further, and again swim the same number of kick pairs. Continue the pattern for as long as necessary.

The side displacement between each turn in a search pattern depends on visibility. Keep the distance between each turn shorter than theoretically possible.

# CARE

Use only fresh water and mild soap for cleaning. Clean your compass after each dive.

- Operating/storage temperature: -30° C - +60° C / -22° F - +140° F
- Tilt compensation: max. ±18 degrees

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