

Finding Your Position

If you do not know your position, the first essential step is to orient the map, preferably with a compass.

Finding Position from Distant Detail (Resection)

If there is no local detail, and if the contours are not sufficiently close or shaped to give you a reliable indication of position, your position can only be determined from distant objects such as hill tops, corners of woods, or other natural features, possibly on a sky line. Select three points around you so that your position is within the triangle formed by the points, and preferably so that the lines from each point cut each other at angles exceeding 45 degrees (800 mils).

If you have a means of marking the line of sight from each point accurately on your map, while keeping it correctly oriented, mark these lines on the map. If your map is correctly set these lines will meet at a point which is your position, or at least they will make a small triangle within which your position falls. Check from a fourth point, if available.

If however you have a compass, it may be easier to measure the bearing of each point, record it, and convert it to a grid bearing then plot on the map the back bearing from each point. These lines should then meet at a point or in a small triangle of error. Alternatively, plot the magnetic bearings on tracing paper, and then fit the pattern of the three rays to the map so that they pass through the points observed. Your position is then the point where the three rays meet. This method avoids the need to convert the magnetic bearings to grid bearings.

It's important to select three points so that you are inside the triangle formed by them: if the points are roughly equidistant (Equally distant) your position should be at the centre of the triangle of error.

Always check your determined position from a point of local detail.