“Moscompass” company

The «MosCompass» company (Moscompass-tm) has been developing and manufacturing magnetic compasses for sports and tourism for over 30 years.

The company started its activity in orienteering, which places high demands on compasses. Athletes in competitions require minimal compass needle setup time and maximum needle stability during movement.

A compass must be a convenient, lightweight, durable, reliable, injury-proof and accurate device for an athlete. It must work in any natural and climatic conditions (rain, heat, cold, high altitude, etc.), under harsh operating conditions (resistance to shocks and drop resistance) and in adverse environmental conditions (mud, water, in the sun, in the dark, etc.)

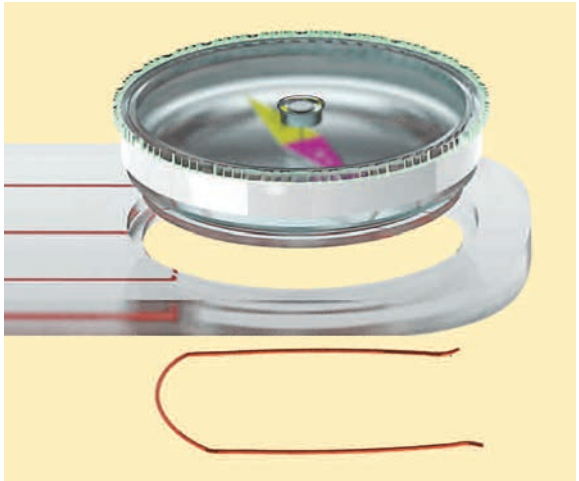
For these purposes, a line of Sports models was developed, which received Russian and international patents. By default, our compasses are balanced for Russia, Europe and North America. Nowadays, compasses with the «MosCompass» brand are well known in the orienteering world.

In addition to sports compasses, we also produce a line of tourist compasses for people engaged in various activities in natural conditions: for sports tourists, search and rescue teams, hunters, foresters etc.

The company also produces specialized compasses–the liquid-free emergency compass "Extreme-MAC" for all weather conditions; for radio athletes (model "Fox"), for mapmakers (model "Cartograph"), for muslims (model "Qibla"), compasses for other regions of the Earth, and others.

In the manufacture of compasses, impact-resistant plastics and super-strong magnets (not demagnetized with time) are used. Magnetic compasses remain popular in this age of satellite navigation, as they operate using the energy of the Earth's magnetic field,anywhere, anytime in 24/7 mode. They are a simple and inexpensive emergency device for personal navigation.

Structurally, our compass consists of two main components – a capsule and a base plate. There is a range of capsule models and a range of base plate types. All capsules and plates are interchangeable according to the principle of modular design. They are connected to each other by means of a locking spring as standard. In this case, the capsule can rotate freely in the plate.



Types of base plates

The base plate is used to hold the compass in working position. In tourism, the plate is held by the hand, but in different locations: on the wrist, in the palm of the hand, and on the thumb.

The compass plate also is used to hold the capsule, usually with the ability to rotate the capsule.

The plate has a line indicating the direction of movement, which, together with the North lines on the capsule, forms a system for measuring the azimuth angle. Using the digital scale on the limb, the azimuth angle can be represented digitally.

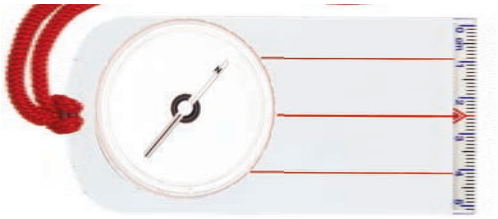
Plate GT-L / GT-R

"GT-L" (GT-R) plate is a new "**G**rand-track" plate with an elastic band for mounting on the thumb of the left (right) hand. For orienteering on the run.

Plate L / R

"L" (R) plate is a popular finger plate with an elastic band for mounting on the thumb of the left (right) hand. For orienteering on the run.

Plate C



"C" plate is a **C**lassic rectangular plate on a cord. Used for azimuthal movement. It is intended for orienteers, sports tourists, rescue services, foresters, etc.

Plate B

"B" plate is **B**ike plate has an elastic band for attaching to the wrist. Designed for cycling and ski orienteering, sport tourism, as well as for hunters, foresters, etc.

Plate XT-L / XT-R

"XT-L" (XT-R) plate is a shortened version of the "GT" plate. It is used in competitions where greater visibility of the map is required, but precise azimuth movement is not required. Used for city and sprint distances.

Plate XL / XR

"XL" (XR) plate is a shortened finger plate with an elastic band for attachment to the thumb of the left (right) hand. For orienteering on the run.

Plate M

"M" plate is a compact plate on a cord. It is intended for tourists, foresters, hunters, etc.

Sports models

All sports models have needles with super-strong magnets, but differ in the needle stabilization system. The models also differ in the design of the limb scale.

Different stabilization systems correspond to different colors of the “spots" in the center of the needles.

The models with stars (8* and 9*), compared to the models 8 and 9, use an improved stabilization system, which increases the stability of the needle while running at high speed.

The fast needle (model 2) has a white spot.

The needle setting time is 0.5-1 sec.

The stable needle (models 3, 8, 9, 10) has a red spot.

The needle setting time is 1-1.5 sec.

Super stable needle (models 8* and 9*, with an star). A spot with a red and white grid.

The needle setting time is 1-1.5 sec.

Model 2 Fast neelle

Model 2. Recommended to fast orienteering style (sprint).
It is the fastest needle.
Needle settling time: 0.5-1 sec.
Stability on the run: good.
Scale: black on white,
unit: 2 grad.

Model 3 Stable needle

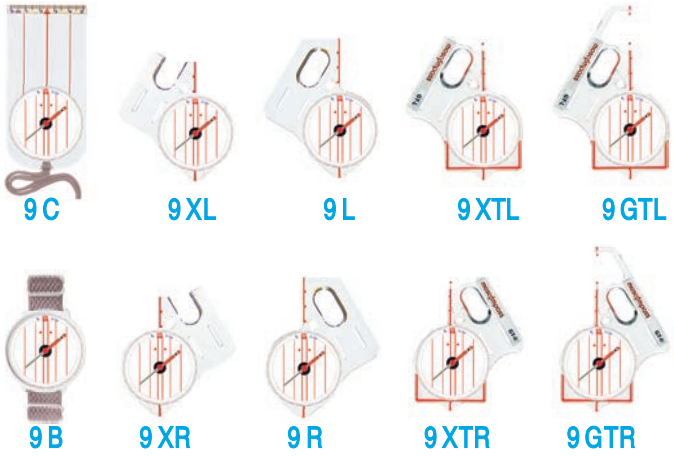
Model 3. The optimal combination of speed and stability of the needle.
Needle setting time: 1-1.5 sec.
Stability on the run: very good.
Scale: white on black,
unit: 2 grad.

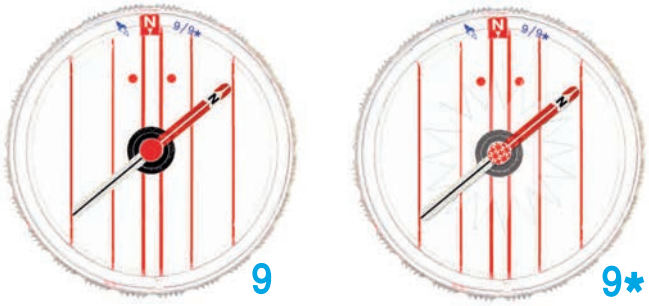
Sports models

Model 8 / 8* Rainbow, stable / superstable needle

Models 8 and 8 *. For the style of orienteering by color and digital sectors. The optimal combination of speed and stability of the needle.
Needle setting time: 1-1.5 sec.
Stability on the run: very good / excellent.
Scale: color-hour scale.

Model 9 / 9* Clear capsule, stable / superstable needle



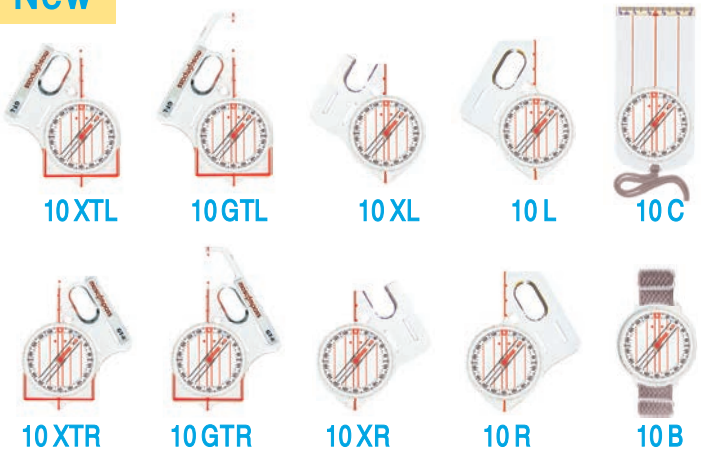


Models 9 and 9 *. The optimal combination of speed and stability of the needle.
Needle setting time:1-1.5 sec.
Stability on the run: very good / excellent.
Scale: none.

Model 10 Wide transparent needle

New

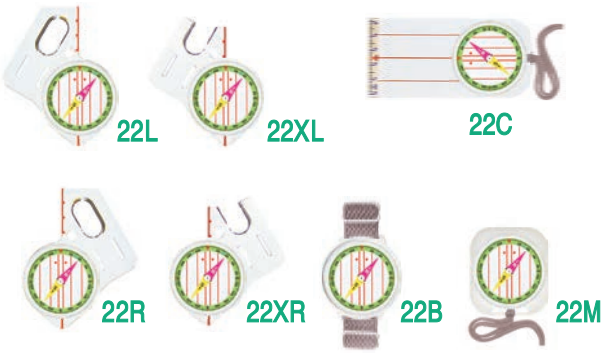
Model 10. This needle is used for precise azimuth movement.
Needle setting time: 1-1.5 sec.
Stability on the run: very good.
Scale: black on white,
unit: 2 and 5 grad.



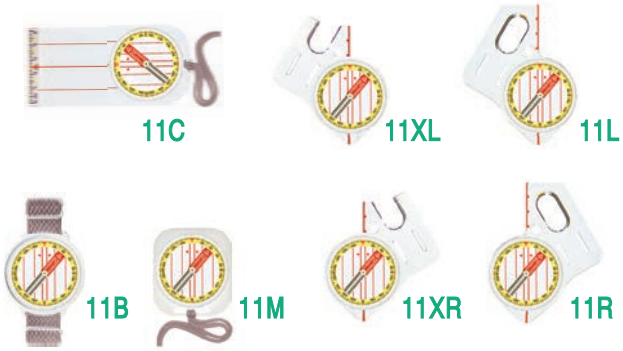
Models for tourism

Model 22 “Tourist”

The Model 22 recommended for tourists and novice orienteers.
Magnet: powerful.
Needle setting time: fast.
Stability on the run: none.
Scale unit: 2 grad.



Model 11 “Universal”



The Model 11 recommended for orienteers and experienced tourists.
Magnet: high-power.
Needle setting time: 1.5-2 sec.
Stability on the run: good. .
Scale unit: 2 grad.

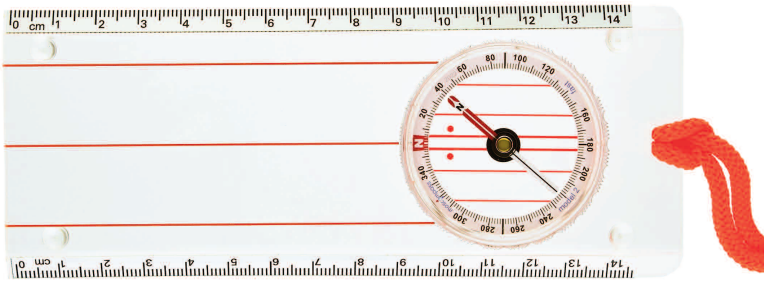
Special models and accessories

Model “Extreme (MAC)” New

Compass “Extreme-MAC”is a liquid-free model. Works in any climatic conditions on Earth. The compass needle has a magnetic damping system. Also the needle is fixed in the inoperative position.
The compass uses photoluminescent elements to operate at night.
Scale graduation value: 2 angular degrees.
Needle magnet: super strong.
Needle setting time is 2-3 seconds.
Operating temperature range: -50 to +50 C ^{o}C.
Placed in an impact-resistant case.

Model “Cartographer”

“Cartographer” model is designed for sports map makers. It uses an extended rectangular plate with an extended ruler.



Special models and accessories

Comass “NOVI”

Compass “NOVI” – compass for top-level athletes with lens. The kit includes: a GTL plate (GTR); a model 9* capsule (with a star); installed lens; lens; a box for transporting and storing a compass with a lens.

Compasses for other regions of the Earth

We produce compasses for other regions of the Earth. The basic model is Model 3. Compasses for Australia, Brazil and Southern Europe are always in stock. Compasses for other regions are made to order.

The lens with a kit

Lens with installation kit for all thumb plates.
Allows you to read small details of the map without reducing running speed.
Lens diameter: 50 mm, magnification: 1.5 times.

Model 10N

New

Capsule model 10N (Night) with photoluminescent elements, for use at night. It is based on the Model 10.

Model “Winter”

Capsule model “Winter “ is based on the model 22. It is recommended for use in winter conditions (up to -25^{o}C).

Model “Fox”

Capsule model “Fox” is based on the model 2, with a reverse scale.
Designed for radio sports - “fox hunting”.

Compass “Qibla”

Compass for Muslims.
Points to the Kaaba.
For all regions of Russia.

Package

All individual packaging is intended for transportation, sale and operation.

Plastic bag with zip lock for tourist models
Material: Polyethylene
Dimensions: 80x130 mm

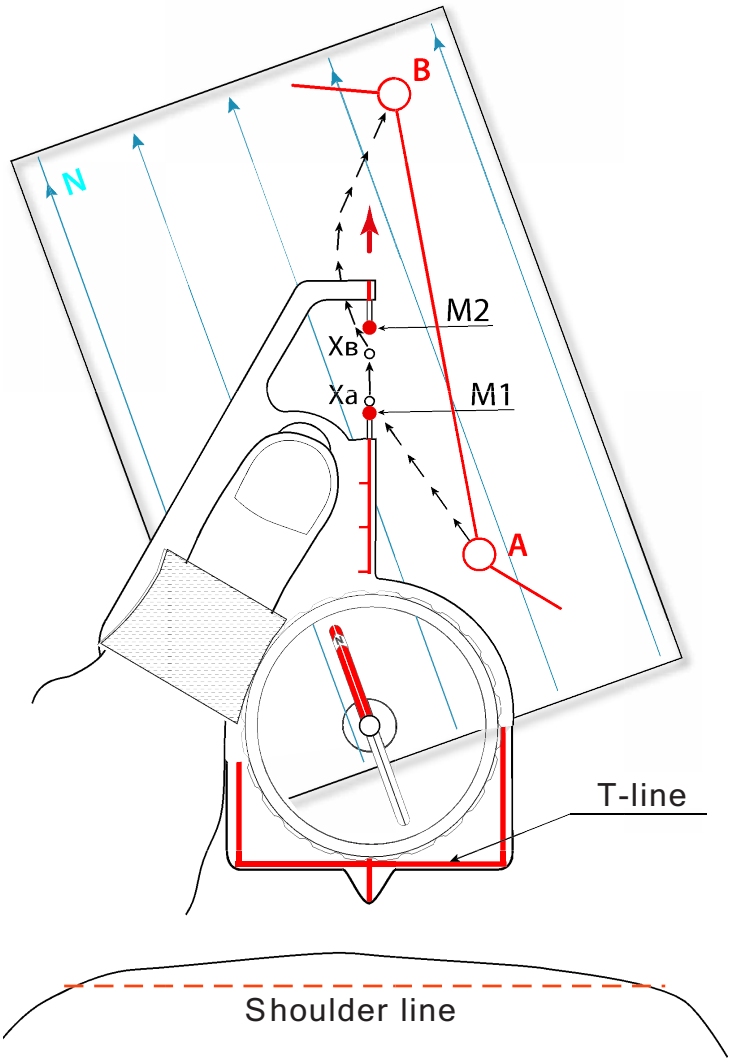
Case for sports models
Material: PVC
Dimensions: 85x170 mm

Box for sport models with GT plate
Material: laminated cardboard, isolon, PET slider.
Dimensions: 148x86x18 mm

Box for sports models on thumb with lens
Material: cardboard, isolon, PET slider
Dimensions: 155x90x45 mm

Box for large orders
Capacity:
- up to 20 pcs of tourist models
- up to 15 pcs of sports models
- up to 11 pcs of sports models with a GTL(GTR) plate
- up to 4 pcs of sports models on thumb with lens
Material: Corrugated cardboard
Dimensions: 200x150x85 mm

Orienteering with «Grand Track» compass



To run the distance between control A and B, the skilled athlete first plans the best trajectory of his movement in the map, his track.

Let's consider the application of the GT compass on the track part from point Xa to point Xb - segment Xa-Xb (see picture). Point Xa -point of beginning location of athlete on the map. Point Xb - point of planned location on the map.

On the GT plate there is a movement line and red dots on this line - markers M1 and M2. Between markers M1 and M2 there is a “window” which provides a complete map reading on both sides of the line of movement. The distance between markers M1 and M2 is a two centimeter and is used for estimate distances in the map.

At first, marker M1 is placed by athlete at point Xa – point beginning location of athlete on the map. Marker M2 is placed in the direction to point Xb - point of planned location on the map. Therefore, the line of movement of the GT plate is exactly located on the desired course Xa-Xb of the athlete in the map. Next, the athlete, using the standard method with a compass, transfers the Xa - Xb course from the map to the terrain. The athlete, moving along this course on the terrain, reading the map and controlling the distance, reaches point Xb with maximum accuracy and reliability. In total, athlete uses marker M1 to move himself on the map as a point along the selected track. Marker M2 is responsible for the immediate course for the current location on the map.

The GT plate has a special line, the T-line, located perpendicular to the movement line. The T-line helps to maintain the line of movement on the plate parallel to the course of the athlete's movement over terrain.

The complex of new technical solutions in the GT compass enables to athlete to run accurately and reliably any selected track.

The copyrights for these are protected by several Russian and foreign patents for inventions.