

Compass

LABOTRIX COMPAS G8

PRODUCT PASSPORT

Kyiv

2026

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1. General Information about the Product

- 1.1. **Product name** — Compass.
- 1.2. **Trademark** — Labotrix.
- 1.3. **Model** — Compas G8; full trade designation — LABOTRIX COMPAS G8.
- 1.4. **Manufacturer** — Labotrix Group Limited, China.
- 1.5. **Intended use:** the compass is used to orient oneself in the field: to identify the cardinal directions, measure the direction to a chosen landmark (azimuth), and check a map against the actual position of objects. The instrument is used in geography lessons, in topography and geodesy courses, as well as during hiking trips and field practicals, when it is necessary to determine the direction of travel or one's own location. The instrument's dial has a scale from 0° to 360° with cardinal direction marks (N, E, S, W).
- 1.6. **Design features:** inside the compass body, a magnetized needle is freely mounted on the tip of the pivot; under the action of Earth's magnetic field it aligns along the magnetic meridian. The body's circular dial is graduated from 0° to 360° and marked with the cardinal directions — north, south, east, and west, so the direction is read directly off the scale. On top is a rotating lid equipped with a sight and an index pointer, which are used to determine the azimuth to a chosen landmark. During transport, a brake lock holds the needle motionless; it is released before measurement, bringing the needle into its working position. The product does not require a power source.

2. Technical Specifications

- Brand — Labotrix
- Model — Compas G8
- SKU — LTX-COMPAS-G8
- Product type — magnetic needle compass
- Body diameter (millimeter) — 30
- Dial graduation (degree) — from 0 to 360
- Marks on the dial scale — cardinal directions: north (N), south (S), east (E), west (W)
- Magnetic needle bearing — pivot point; a brake lock is provided to secure the needle during transport
- The instrument's lid — rotating, equipped with a sight and an azimuth index pointer
- Power — not required
- Operating conditions — premises of an educational institution, air temperature from $+5$ to $+40$ $^{\circ}\text{C}$, relative humidity from 40 to 60 % without condensate
- Language of marking and operating documentation — Ukrainian
- Product marking — trademark, model and a space for the inventory number
- Documentation supplied — product passport with warranty card and operating manual
- Packaging — individual box with the contents secured
- Installation method — held in hand during measurement

- Ready-to-use condition — supplied ready for use, requires no preliminary setup
- User requirements — work with the instrument is permitted under the supervision of a geography teacher
- Service life (year) — 5
- Warranty period (month) — 12

3. Package Contents

- Assembled compass (body, dial, rotating lid with sight) — 1 pcs
- Product Passport and Warranty Card — 1 pcs
- Individual transport packaging — 1 pcs

The product is fully assembled and ready for use; it requires no additional setup or assembly.

4. Safety Precautions

4.1. General requirements

- Before first use, read this passport and keep it together with the product and the proof of purchase.
- The compass is used under the guidance of a geography teacher; students who have completed occupational safety training and are familiar with the instrument's operating procedure are allowed to work with it independently.
- Inspect the unpacked product: the body, dial, and lid must be free of cracks and chips, and the needle — must move freely and stop after the brake lock is released.
- Do not give the compass to young children without adult supervision.

4.2. Safety when working with the instrument

- The magnetic needle is sensitive to external magnetic fields: during measurement, keep the compass at a distance of at least 30 cm from mobile phones, metal objects, and other magnets.
- Do not disassemble the compass or try to remove the magnetic needle from its pivot yourself.
- Before putting the compass away, secure the needle with the brake lock — this prevents the needle from striking the walls of the body during transport.
- Protect the instrument from drops and strong impacts: they can shift the needle's pivot and impair the accuracy of the readings.

4.3. Safety during fieldwork

- When working in elevated locations, near steep riverbanks, or in mountainous terrain, follow the general field safety rules.
- During rain, protect the compass from getting wet by closing the lid immediately after reading the indication.
- Before group work, agree on the procedure for passing measured azimuths and directions of travel between participants.
- Do not tie the compass to a rope or cord while carrying it — this increases the risk of it falling and being damaged.

4.4. It is strictly prohibited

- Immerse the compass in water.
- Disassemble the body, dial, or lid of the compass without authorization.
- Heat the compass, leave it on heating radiators, or leave it in direct sunlight for a long time.
- Use the compass as a striking tool, a lever, or a prop.
- Place heavy objects on the compass — this deforms the body and disrupts the free movement of the dial.

5. Preparation for Use

- 5.1. Unpack the compass and, if present, remove the protective film from the lid and the dial scale.
- 5.2. Check the free rotation of the dial and lid — they should move smoothly, without sticking.
- 5.3. Release the brake lock and make sure the magnetic needle rotates freely and stops in the same position each time.
- 5.4. Check that the graduation marks and cardinal direction labels are clearly visible on the dial scale.
- 5.5. Before first use in a new area, find out the magnetic declination value for that region — it is indicated on topographic maps.
- 5.6. Before measuring, remove mobile phones, keys, and other metal or magnetic objects from near the compass.

6. Operating Procedure

6.1. Determining the cardinal directions

- Release the needle's brake lock and hold the compass horizontally at chest level, away from metal objects.
- Wait until the needle settles: its colored end will point in the direction of magnetic north.
- Turn the dial so that the north mark (N) aligns with the settled end of the needle, and read the other cardinal directions from the corresponding scale marks.

6.2. Measuring the azimuth to a landmark

- Open the compass lid and aim the sight at the chosen landmark in the field.
- Holding the compass horizontally, wait for the magnetic needle to settle.
- Take the azimuth reading at the lid's index pointer, at the point where it crosses the dial scale.

6.3. Moving by azimuth

- If the required azimuth is known in advance, turn the dial so that this value aligns with the index pointer.
- Holding the compass horizontally, turn your whole body until the settled end of the needle aligns with the dial's north mark.
- Select an intermediate landmark in the direction of travel and head toward it, periodically checking the direction with the compass.

6.4. Orienting the map

- Place the compass on the map so that the side edge of the body lies along the map's meridian line.
- Holding the compass still, turn the map together with it until the settled end of the needle aligns with the dial's north mark.
- After this, the map is oriented according to the cardinal directions in the field.

6.5. Finishing the work

- Close the compass lid fully.
- Secure the magnetic needle with the brake lock.
- Place the compass in a dry place or in its individual packaging.

7. Care, Maintenance and Troubleshooting

7.1. Cleaning

- Wipe the body and lid with a dry soft cloth.
- Remove dust from the dial scale with a dry brush with soft bristles.
- Do not immerse the compass in water or wash it under running water.
- Do not use solvents, alcohol, or aggressive agents for cleaning.

7.2. Periodic inspection

- Before each use, check the free movement of the dial and the proper functioning of the needle's brake lock.
- Periodically check the compass reading against a known direction or another properly functioning compass, to detect any possible needle drift in time.
- Repair of the body, the dial, and the needle locking mechanism is performed only by an authorized service center.

7.3. Possible malfunctions and methods of their elimination

Symptom	Possible cause	User actions
The dial rotates with difficulty or jams	Contamination of the mechanism with dust or sand	Remove dust with a dry brush; do not try to force-rotate the dial
The needle does not settle in one position	There are metal objects, magnets, or sources of electromagnetic field nearby	Move away from metal objects and electronics by 2-3 m and repeat the measurement
The needle does not move after the lock is released	The lock is not fully released; the needle's pivot is contaminated	Check the position of the lock; if the malfunction persists, contact the service center
The lid or sight is wobbly	The lid mount has loosened	Contact the service center for adjustment or replacement of the mount
The graduation marks on the dial scale are hard to see	Contamination or wear of the scale	Wipe the scale with a dry cloth; if the markings are worn off, contact the seller

8. Storage and Transportation Conditions

- Store the compass in a dry room at a temperature not below +5 and not above +40 °C and relative air humidity not exceeding 80 %.
- Protect the compass from moisture, dust, direct sunlight, and sudden temperature changes.
- Keep the compass away from magnets, powerful electrical appliances, and heating radiators.
- Do not squeeze or bend the instrument — this deforms the body and disrupts the movement of the dial.
- Transport the compass in its original or a similar rigid packaging that protects it from impacts.
- The storage period before commissioning is unlimited provided that the stated requirements are observed.

9. Warranty Obligations

- 9.1. The warranty period of operation of the product is 12 months from the date of sale specified in the warranty card.
- 9.2. The manufacturer guarantees that the product conforms to the declared technical specifications provided that the transportation, storage and operating rules set out in this passport are observed.
- 9.3. During the warranty period, defects of the product that have arisen through the fault of the manufacturer are remedied free of charge. The method of remedy (repair, replacement of a component or replacement of the product) is determined by the service center.
- 9.4. Warranty service is provided on presentation of a correctly and completely filled-in warranty card and of a document confirming the fact and the date of purchase.
- 9.5. The warranty does not cover cases where the malfunction is caused by:
 - mechanical damage, in particular cracks, chips and deformation of the housing and of the components of the product;
 - violation of the operating, storage or transportation rules set out in this passport;
 - ingress of liquid or foreign objects into the product, and also the action of insects and animals;
 - independent disassembly, repair or modification of the product, in particular repair at unauthorized workshops;
 - use of the product other than for its intended purpose;
 - force majeure circumstances (fire, flood, earthquake, etc.).
- 9.6. The warranty does not cover the natural wear of the coating and of the appearance of the product, nor consumables.

10. Product Disposal

- The product must not be disposed of together with unsorted municipal waste. This is indicated by the marking in the form of a crossed-out container on the product or its packaging.
- After the end of the service life, hand the product over to a collection point for the corresponding waste or to an organization holding the appropriate permit.

- Hand over the packaging elements (cardboard, polymer materials) to the corresponding streams of recyclable materials.

Contacts

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Conditions of use and storage of the product

The product is intended for educational work in general secondary education institutions and is used only under the control and supervision of a teaching staff member; the recommended age of students — from 10 years, that is, students of grade 5 and of higher grades. Keep the product in a dry, clean and ventilated room at a temperature from +5 to +40 °C and relative air humidity up to 80 % without condensation, separately from heat sources and out of direct sunlight, moisture and dust. Use the product exclusively for its intended purpose and do not allow drops, impacts or other mechanical damage. If you notice damage, a crack or any malfunction, stop working with the product immediately and inform the teacher or the responsible person of the educational institution; repairing the product on your own is prohibited.

WARRANTY CARD

Name:	Compass
Product model:	LABOTRIX COMPAS G8
Serial number:	
Date of sale:	
Warranty period:	12 months from the date of sale
Trading organization:	
Signature of the seller:	

The goods have been received in working order, without visible damage, complete, and have been checked in my presence. I have no claims regarding the quality of the goods; I have read and agree to the operating and warranty service conditions.

Full name of the buyer _____

Telephone of the buyer _____ Signature of the buyer _____

Dear Customer!

Thank you for choosing Labotrix products. After-sales service of this product is provided in accordance with the regulations of the company and the legislation of the country of sale. So that we can serve you quickly and without unnecessary formalities, check that this warranty card is filled in correctly at the moment of purchase and keep it together with the payment document throughout the entire warranty period. When applying for repair, hand the product over to the seller or to the service center together with the filled-in card.

Procedure for applying

1. The right to free warranty service of the product is valid for 12 months from the date of sale specified in the warranty card. Within this period, components that have failed because of a manufacturing defect are repaired or replaced at no cost to the buyer.
2. Before applying, make sure that the malfunction is not caused by the reasons listed in section 9 of this passport and, if possible, use the table of possible malfunctions in subsection 7.3.
3. After the end of the 12-month warranty period, repairs are performed on a paid basis; the cost of the work and of the spare parts is determined depending on the nature of the malfunction.

Grounds for refusal of warranty service

The company reserves the right to refuse free service or to perform the work on a paid basis if at least one of the following circumstances is established:

- absence of the warranty card, its incomplete or corrected completion, and also the absence of a document confirming the purchase;
- non-conformity of the serial number of the product with the number specified in the card, or damage to the factory marking;
- traces of independent disassembly, repair or modification of the product;
- damage caused by violation of the operating rules, connection to an unsuitable power source or external mechanical impact;
- damage as a result of force majeure circumstances.

Service Records

Date of entry	Description of the malfunction	Work performed	Position, signature, full name of the responsible person