

Cup anemometer

LABOTRIX ANEMO G6

PRODUCT PASSPORT

Kyiv

2026

1. Basic product information

- 1.1. Product name — Cup anemometer.
- 1.2. Trademark — Labotrix.
- 1.3. Model — Anemo G6; full trade name — LABOTRIX ANEMO G6.
- 1.4. Manufacturer — Labotrix Group Limited, China.
- 1.5. Intended use: The cup anemometer measures wind speed for educational purposes in secondary schools. The device is used in geography and science classes to study the atmosphere and the causes of wind, as well as in school weather stations to observe the weather. It only records the speed of the air flow and does not determine its direction - for this, a weather vane or wind indicator is used.
- 1.6. Design features: The device consists of a vertical axis with a support, a crosspiece with cups-hemisphericals, an electronic signal processing unit with a display and a housing with a mounting unit. Four cups in the form of hemispheres are fixed on a horizontal crosspiece and oriented in the same way: under the influence of wind they rotate around a vertical axis, and the rotation frequency depends on the speed of the air flow. The electronic unit processes the rotor rotation frequency and displays the result on the display - the instantaneous and average wind speed, wind force in points and the wave height corresponding to it.

2. Technical specifications

- Brand — Labotrix
- Model — Anemo G6
- The article number is LTX-ANEMO-G6
- Device type — rotary cup anemometer
- Measured quantity — wind speed (air speed)
- Sensitive element - hemispherical cups on the crosspiece
- Axis of rotation - vertical
- Operating principle - electronic
- Mounting method - on a mast, pole or tripod, held in a raised hand during short measurements
- Wind direction determination — not provided; used with a weather vane
- Wind speed measurement range (meter per second) - from 0.5 to 30
- Resolution — 0.1 m/s (wind speed), 1 point (wind force), 0.1 m (wave height)
- Wind speed measurement error — $\pm(0.3 + 0.03 \times V)$, where V is the actual wind speed, m/s
- The displayed values are instantaneous and average wind speed, wind force in points, and corresponding wave height.
- Operating temperature (degrees Celsius) — from -45 to +60
- Relative humidity during operation (%) — up to 100, non-condensing

- Number of cups - four
- Overall dimensions (length × width × height) (centimeters) — 33 × 4.5 × 24
- Power supply — autonomous (built-in batteries)
- Average current consumption (milliamperes) — 5
- 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 - case or individual packaging with contents fixation
- Conditions of use - open area on the territory of an educational institution, work during thunderstorms or hail is prohibited
- User requirements - installation on the mast is performed by an adult, students work under the supervision of a teacher
- Service life (year) — 5
- Warranty period (month) — 12

3. Equipment

- Cup anemometer assembly (cup assembly, axis, electronic unit with display, housing) — 1 pc.
- Details for mounting on a mast, pole or tripod - depending on the version
- Case or packaging for storage and transportation — 1 pc.
- Product Passport and Warranty Card — 1 pcs
- Individual transport packaging — 1 pcs

The device is supplied without a mast, pole, tripod, weather vane and observation log - these are purchased separately. The product does not require assembly before first use.

4. Safety measures

4.1. General requirements

- Before first use, read this passport and thereafter keep it together with the product and the document of purchase.
- Only an adult can install and remove the device from the mast. Students work with the device under the supervision of a teacher on the ground.
- Inspect the unpacked device for possible damage. Devices with missing cups, a bent crosspiece, a tilted axis, or a loose housing must not be used.
- Measurements are taken in a safe place, away from the roadway, roof edges, and cliffs.

4.2. Working at height

- Do not install the mast near overhead power lines, antennas, and transformer substations. The distance to the wires should exceed the height of the mast.

- Place the ladder on a firm, level surface. Be sure to have a second person nearby to provide support.
- Do not lift students onto a ladder, parapet, or roof.

4.3. Mechanical safety

- Do not touch the rotating cups. To stop the device, move it out of the wind or cover it from the flow.
- Securely fasten the mast and check the tightness of the fastening. An unsecured mast will fall in a gust of wind and may injure people and break the device.
- Monitor the condition of the cups and spokes of the crosspiece. A cracked or poorly secured cup may break off during rapid rotation.
- Do not use the device as a toy: do not spin the cups with your hands, do not blow into them, do not throw or knock the device.

4.4. It is strictly forbidden

- Leaving the device on the playground unattended or leaving students on the playground alone.
- Take measurements during thunderstorms, squalls, hurricanes, heavy rain, hail, and ice.
- Disassemble the housing and interfere with the transmission mechanism without the supplier's permission.
- Lubricate the device with household oils and bicycle grease.
- Immerse the device in water and wash it under running water.

5. Preparation for work

- 5.1. Unpack the device and unpack all components. Save the packaging and case for storage and transportation.
- 5.2. Check the completeness of the set according to section 3 of this passport and inspect the device for mechanical damage.
- 5.3. Carefully turn the crosshead by hand and make sure that it rotates easily, without binding, rattling or wobbling. After a push, it should rotate by inertia for a few seconds and then stop smoothly.
- 5.4. Check the electronic unit and display: turn on the device, if provided for by the design, and make sure that the display shows the readings and that the wind speed value changes during the rotation of the crosshair.
- 5.5. Choose an open, flat area away from buildings, trees, and fences. Follow the rule: the distance to the obstacle should be at least ten times its height. Mark the chosen location on the school grounds.
- 5.6. Secure the device to a mast, pole or tripod with the mounting assembly. Set the axis strictly vertically - check from two directions, using a building level or plumb line. Make sure that nothing prevents rotation: branches, wires, cover, fasteners. Let the device run for 1–2 minutes before starting the measurement.

6. Procedure

6.1. Reading the instantaneous wind speed

Point the device into the wind and wait until the rotor starts to rotate evenly. The display shows the instantaneous wind speed in meters per second - record the reading in your observation log.

6.2. Reading average wind speed and force

Read the average wind speed for the observation period from the display, as well as the wind force in points and the corresponding wave height - the device calculates these values independently.

6.3. Repeated measurements

Take at least three measurements in a row at the same location and calculate their average. If the results differ significantly, or the wind is gusty, increase the number of measurements or the duration of the observation.

6.4. Completion of work

Record all results and related data in a logbook: date, time, location, wind direction as measured by the weather vane, temperature, cloud cover. Without this information, a number of observations are meaningless. Remove the instrument from the mast and wipe it with a dry cloth.

7. Care, maintenance and possible malfunctions

7.1. Cleaning

- After each use, carefully clean the cups from dust, cobwebs, leaves, and insects - buildup changes air resistance and lowers readings.
- Wipe the device with a dry, soft cloth. If it gets wet, dry it at room temperature, away from radiators and open flames.
- Do not immerse the device in water or wash it under a jet of water. Water in the axle supports, mechanism and electronic unit will damage the device.
- Do not use solvents, alcohol, acetone, abrasive powders, or hard brushes.

7.2. Periodic control

- At least once a month, check the free rotation of the crosshead, the tightness of the fasteners, and the verticality of the device installation.
- Inspect the cups and spokes: they should be intact, equally spaced from the axle, and securely fastened.
- Check the display and replace the batteries if necessary.
- The product does not require lubrication or other maintenance operations by the user, except as specified in the product data sheet. Repairs are performed only by an authorized service center.

7.3. Possible malfunctions and ways to eliminate them

Symptom	Possible cause	User actions
The cups rotate slowly or with delays	Dirt in the axle bearings; moisture; tilted axle; obstacle close to the device	Clean and dry the device, check verticality, remove obstacles
The display does not show the speed value or the indicator does not change	Discharged batteries; electronic unit malfunction; rotor stuck	Replace the batteries, check the free rotation of the rotor; if this does not help, contact the supplier
The cup is deformed, the needle is bent or lost	Impact, fall, freezing ice	Remove the device from service; readings are unreliable, the cup may break; do not align the parts yourself
The readings are noticeably lower than the feeling	The device is too quiet or too low; the cup is dirty; some of the cups are missing	Move the device to a more open and higher place, clean the cups, replace the product if deformed.
The results of the three measurements are very different	Gusty wind; observer shields instrument from wind	Increase the number of measurements, obtain the spread (smallest–largest value); record in the journal
Moisture under the glass or rust on the mechanism	Storage in a humid room	Dry at room temperature; store in a dry place; rust requires factory repair

8. Storage and transportation conditions

- Store the device in a dry, ventilated room at room temperature (not lower than +5 and not higher than +40 °C) and relative humidity up to 80% in the case of original packaging.
- Protect the product from direct sunlight, shocks, vibrations and exposure to aggressive substances and their vapors.
- Do not leave the device on the mast during cold periods: ice formation on the cups will break the crosspiece.
- Before the holidays, remove the device, clean it, check the rotation, and store it. Record the date of removal and the latest display readings in the logbook.

- For long-distance transportation, pack the device in a rigid package with shock-absorbing material. Transport by any type of closed transport.
- The storage period before commissioning is unlimited provided that the stated requirements are observed.

9. Warranty obligations

- 9.1. The warranty period of the product is 12 months from the date of sale specified in the warranty card.
- 9.2. The manufacturer guarantees that the product complies with the declared technical characteristics, provided that the rules for transportation, storage and operation set out in this passport are followed.
- 9.3. During the warranty period, product defects that have arisen due to the manufacturer's fault will be eliminated free of charge. The method of elimination (repair, component replacement or product replacement) is determined by the service center.
- 9.4. Warranty service is provided upon receipt of a correctly and completely filled out warranty card and a document confirming the fact and date of purchase.
- 9.5. The warranty does not apply to 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 apply to natural wear and tear of the coating and appearance of the product, as well as to 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

LABOTRIX GROUP LIMITED

Room 910, Isteelesia 1 No. 18 Fu'an Blvd, Pinghu Subdistrict,
Longgang District, Shenzhen City,
Guangdong Province, China 518111
Phone: +86 13925261264
E-mail: salesmanager@labotrix.com
Website: <https://labotrix.com/>

Address in Ukrainian:

LABOTRIX GROUP LIMITED

Room 910, Istilazia 1, Fuan Boulevard No. 18,
Pinghu Subdistrict, Longgang District,
Shenzhen, Guangdong Province, China 518111
Telephone: +86 13925261264
E-mail: salesmanager@labotrix.com
Website: <https://labotrix.com/>

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

Product name:	Cup anemometer
Product model:	LABOTRIX ANEMO G6
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

Buyer's phone number Buyer's signature

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 for the product is valid for 12 months from the date of sale specified in the warranty card. Within this period, components that have failed due to a manufacturing defect are repaired or replaced without payment from the buyer.
2. Before contacting, 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 section 7.3.
3. After the 12-month warranty period, repairs are carried out for a fee; the cost of work and 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