

GPS tracker

Voyager 5N (M)

Data sheet

Device identification number

1. General Information

Voyager 5N (M) is a GPS tracker (hereinafter referred to as the device) used for monitoring of various irregular cargoes, such as containers, railroad cars, road trains.

The device can be installed on any surface by means of powerful magnets or bolts, depending on its type. It transmits coordinates: either on-line or by a configurable schedule.

Using an integrated motion sensor, it determines the location and the time the cargo motion begins and ends. It determines the time and place of device installation on the container.

If its enclosure is separated from the surface (Voyager 5N M) or opened, the device transmits an alarm signal. Comes in a sealed enclosure.

This data sheet applies to 2 versions of the device:

- With a magnetic sole with installed magnets – **Voyager 5N M**;
- Without magnets (surface mounted with bolts) – **Voyager 5N**.

2. Manufacturer

RITM Company
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www.ritm.ru/en world@ritm.ru

3. Package Contents

Voyager 5N (M) GPS tracker	1 piece
Sole with magnets installed ¹	1 piece
ER34615M EEMB battery	2 pcs
Data sheet	1 piece

¹ In the Voyager 5N version, the magnets are not installed in the sole.

4. Technical Specifications

Parameter	Value
Coordinate Detection	
GPS	+
GLONASS	+
GPS/GLONASS antenna	Built-in
Communicator	
GSM (CSD, GPRS)	2 SIM cards
GSM antenna	Built-in
Built-in sensors	
Built-in motion sensor	+
Enclosure tamper	+
Power supply	
Operates on replaceable batteries	2×3.6 V ER34615M
Supported Interfaces	
MicroUSB	+
General Specifications	
Non-volatile memory, black box ²	Up to 50 000 points
Programmable via Micro USB cable	+
Buttons on enclosure	Tamper (under battery compartment cover)
Internal indicators	GPS/GLONASS Reception Active SIM Card Modem Status Power Supply
Enclosure Ingress Protection Rating	IP67
Number of magnets on the sole (for Voyager 5N M)	10
Pull off force of every magnet, kgf	~11
Dimensions, mm	57×84×168
Weight, g	650
Operating temperature range, °C ³	-40...+55

² When using basic parameters necessary for precise detection of the device location.

³ Without regard to battery characteristics.

5. Designation of Elements

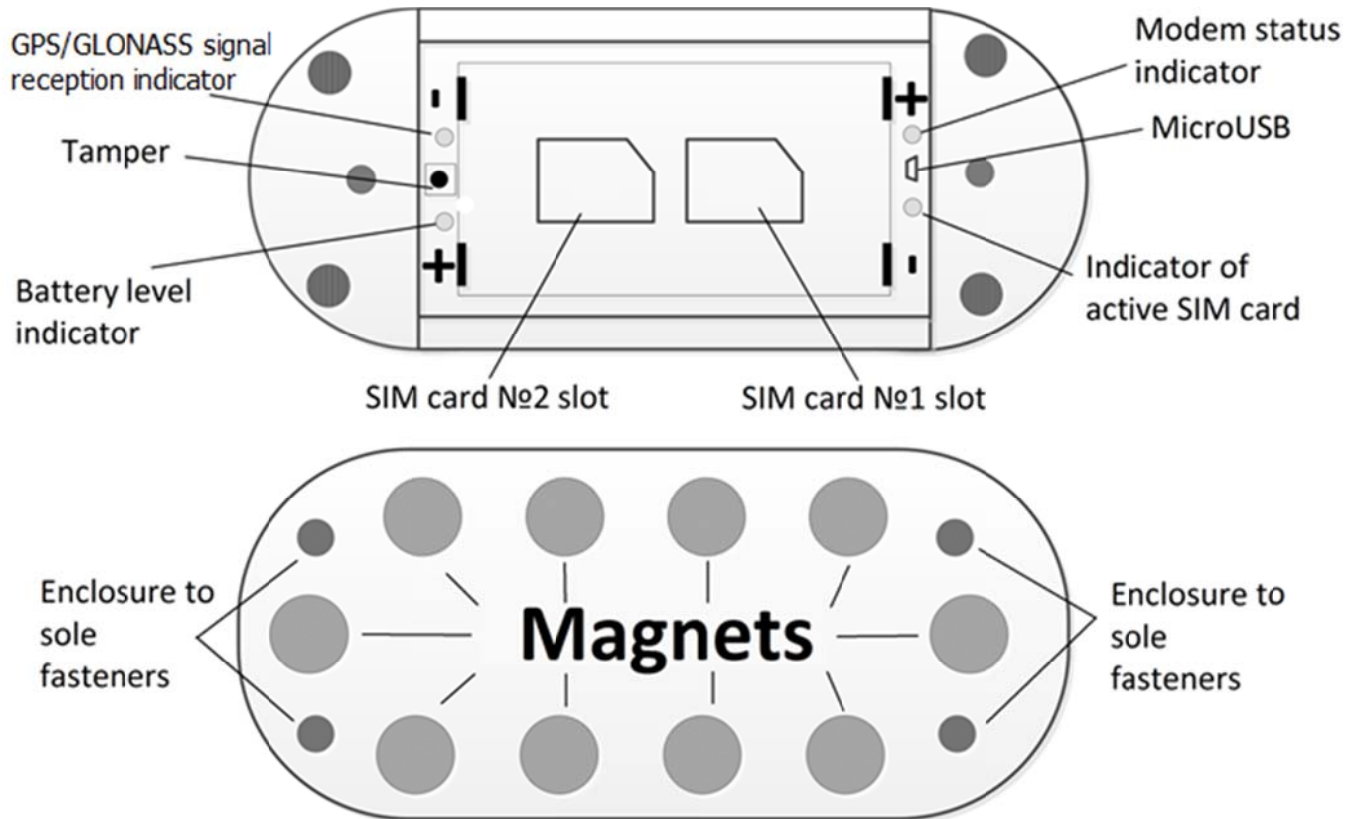


Figure 1. The device top part (Voyager 5N M and Voyager 5N) with the cover open and the device bottom part – the sole with magnets installed (for Voyager 5N M version)

Element	State	Value
Indicators		
GPS	Blinks at 7 Hz	Satellites not determined
	Blinks at 1 Hz	Satellites determined
Battery Level	Blinks 3 times in 10 seconds	Batteries depleted
	Blinks once in 10 seconds	Batteries OK
Modem Status	Blinks very frequently	The device is connected to the monitoring server
	Blinks frequently	Registration in GSM network
	Blinks slowly	The device modem has successfully registered in the GSM network
	Off	The device modem is switched off
Active SIM card	Off	SIM card No. 1 active
	On	SIM card No. 2 active

6. Configuration

To configure the device, connect to it using the most suitable way:

- **Desktop configuration.** To connect use a Micro-USB cable and the configuration software ritm.conf or Ritm Configure.
- **Remote configuration via digital GSM.** To connect use a GSM CSD channel and the configuration software ritm.conf or Ritm Configure.
- **Remote configuration via TCP/IP/.** Using the GEO.RITM or RITM-Link software via a TCP/IP connection, if the used device modification features this setting and works in Online mode.



To use the configuration software ritm.conf or Ritm Configure download it from the website of the "Ritm" (www.ritm.ru/en) and install all the required drivers.

To connect via a digital CSD-channel make sure there is access to the digital data transmission service (CSD) and there are enough funds on the account of the SIM-card inserted into the device.

Remote configuration via CSD is only possible from the engineering phone numbers.

7. Getting Ready for Operation

1. Configure the device prior to its installation on the object. Enter valid APN settings.
2. Prior to inserting a SIM card into the device, insert it into a mobile phone. Turn off the PIN code entry feature, check availability of data links that are to be used (CSD, GPRS), and check if the account balance is positive.
3. Open the cover on the device enclosure and insert SIM cards into their respective boxes.
4. Install batteries from the package into the device.
5. The device is entering its operating mode during the minute after the power is supplied.
6. Close the cover and, if necessary, seal the bolt attachment locations.
7. The enclosure ingress protection rating allows the device to be used under practically any conditions. However, its installation location should be protected against atmosphere effects, dirt, physical impact, and prevent free access of unauthorized persons.

Make sure the device is located at least 0.5 m from all EMI (generators, loudspeakers, etc.) sources.

Make sure there are no screening metal surfaces above the device.

8. Maintenance and Safety Measures

At least once per month check SIM card accounts for funds.

All setup and maintenance activities applied to the device should be performed by duly qualified personnel.

9. Transportation and Storage

The device should be transported in packaging in closed vehicles. Storage premises should be free of current-conducting dust, acid and alkaline fumes, corrosive gases and gases harmful to insulation.

10. Manufacturer's Warranties

The manufacturer guarantees that the device complies to requirements of the technical specifications, provided the client ensures compliances to conditions of transportation, storage, installation and operation.

Developer and manufacturer guarantees full operation of the device only with the monitoring software GEO.RITM. Not guaranteed to work with other monitoring services (the device works "as is").

Warranty repairs of the device are done throughout the life cycle. The manufacturer's warranty does not cover the batteries.

The device life cycle is 6 years (provided the operating conditions are observed).

The manufacturer shall not be responsible for quality of data links provided by GSM operators and Internet service providers.

The manufacturer reserves the right for modification of the device in any way that does not degrade its functional characteristics without prior notice.

11. Information on Claims

In case of a device failure or defect during the warranty period, please fill in a malfunction report specifying the dates of issue and commissioning of the device and nature of the defect and submit it to the manufacturer.

For Notes

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