

M-304



DATASHEET

Robotic System MedBot M-304

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I Essentials and specification

I.1 Essentials

Purpose: performing disinfection of premises for different purposes.

Shorthand name: M-304.

M-304 is a robotic device equipped with a wheel platform and body frame including recirculator frame with a ventilator and UV lamps.

Date of manufacture of M-304: _____

Factory number of M-304: _____

Manufacturer: JSC "SPA "Android Technics".

Address: 23 Grayvoronovskaya st., Moscow, 109518, Russian Federation.

Phone numbers: 8 (495) 226-02-99, 8 (495) 226-12-99, 8 (495) 226-14-99.

E-mail: info@rusandroid.com

General Director: _____
(signature)

I.2 Specification

Specification of M-304 is presented in table I.

Table I – Specification of M-304

Characteristic:	Value:
Special ozone free bactericidal lamp T8 30W G13 L895mm	UV Lamp
Type of UV radiation	UVC
Lamp power, W	30
Lamp base type	G13
Lamp type	T8
Service life, h	9000
Total lamp length, mm	895
Lamp diameter, mm	26
Recirculator	Metal body frame
Type of irradiator recirculator	Closed
Version of the recirculator	Mobile
Number of germicidal lamps, pcs.	6
Recirculator capacity, m ³ / h	90
Recirculator power consumption, W	180
Power supply through inverter, V / Hz	220/50
Noise level of the recirculator, dB	40
Orientation and navigation system (Lidar technology using a laser pulse)	Shock sensor, Distance sensors
Protection from collision with an obstacle	Yes
Availability of a lamp life indicator	Yes
Operation of the device in the presence of people	Yes
Control modes	Autonomous mode/Remote mode
Led indication	Battery charge indication System status indication Connection indication Power indication
Connection type	Wi-Fi/Bluetooth
Antenna type	Built in
Auto diagnostics of the control system	Yes
Wheel diameter, mm	152,4
Wheel width, mm	80
Platform travel speed, km / h	No more than 4

Characteristic:	Value:
Maximum height of an obstacle, mm	10
Overall dimensions of M-304, mm	679x587x2025
Installation on the battery charger	Automatic
Battery life without charging, h	4
Removable battery	Yes
Axial ventilator 34I4N	Cooling system
Power supply voltage, V	36
Ventilator capacity, m ³ / h	84
Ventilator power consumption, W	2,3
Ventilator noise level, dB	3
Weight, kg	No more than 80

The general view of M-304 is shown in figure I.

Figure I – M-304.



2 Completeness

Contents of delivery (depending on configuration) is presented in table 2.

Table 2 – Contents of delivery of M-304

No.	Item	Number, pcs
Robotic System MedBot M-304		
according to Specification of TU 86.90.12-007-64412177-2020		
Set 1		
1	recirculator	1
2	wheel platform	1
3	battery	1
4	software	1
5	software	1
Set 2		
1	recirculator	1
2	wheel platform	1
3	battery	1
4	software	1
5	software	1
6	charging station	1

2.1 Wheel platform

Wheel platform is designed for stable movement of M-304 around the premises.

2.2 Recirculator

Recirculator of M-304 is equipped with six bactericidal UV lamps and a ventilator.

2.3 Battery

The battery provides autonomous uninterrupted operation of M-304 for 4 hours. When the battery is discharged, M-304 returns to the charging station on its own.*

*Optionally

2.4 Software

Software of M-304 has following functions:
— remote connection and control of M-304;
— displaying notifications;
— displaying reference information.

3 Resources, service life, storage and manufacturer's warranty

Resources and service life of the product are observed when the schedules and regulations for maintenance and scheduled preventive repair are fulfilled in full, and when the consumer complies with the conditions of transportation, storage and operation.

The manufacturer guarantees compliance of the system with the requirements of GOST ISO 9001-2015 if the consumer complies with the conditions of transportation, storage and operation.

The warranty period of the prototype is 12 months from the date of delivery within the warranty period of storage.

The warranty period of storage of the prototype is 12 months from the date of manufacture. After the expiration of the storage period of the prototype, it can be used for its intended purpose only after a preliminary check of its quality.

M-304 should be stored in the manufacturer's container before use.

Storage, transportation and operation conditions:

- ambient temperature 0-40 °C;
- relative humidity 45-80% at an ambient temperature of 25 °C;
- atmospheric pressure from 84 kPa to 107 kPa (630-800 mm Hg);
- environment - non-flammable, non-explosive, does not contain vapors of caustic liquids destroying metal and insulation, atmosphere type 3 in accordance with GOST 15150-69.

Requirements for the impact of mechanical factors of the environment comply with the group of operating conditions M1 according to GOST 17516.1-90.

Transportation by road, rail and avia means of transport is allowed.

The design of all elements of M-304 ensures the safety of service personnel during operation and maintenance in accordance with GOST 29075-91.

The manufacturer guarantees repair or replacement of failed elements during the warranty period, when the consumer complies with the rules of operation and there is no mechanical damage.

Only unique equipment included in M-304 is covered under warranty of the manufacturer:

- body frame with the recirculator – 1 pce,
- wheel platform – 1 pce.

The manufacturer reserves the right to change the appearance and configuration of M-304 without loss in performance and functionality.

4 Conservation

Conservation of M-304 is allowed for the entire warranty period using conservation method VZ-I according to GOST 9.014-78.

M-304, the operation of which is not planned for three months or more, must be preserved and put into storage.

M-304 delivered from the manufacturer may be put into storage without additional preservation for a period of 12 months.

M-304, which was in operation, should be maintained before the preparation of surfaces for preservation.

All metal surfaces, which do not have anti-corrosion coatings, are subject to conservation. Painted surfaces are not subject to conservation.

Conservation should be carried out in ventilated areas at a temperature not lower than plus 15° C and relative humidity not higher than 70%.

All assembly elements and units of M-304, subject to conservation, must be clean, without corrosion damage to the metal, as well as without damage to paint and other permanent coatings. Damaged paintwork must be restored.

All assembly units and units of M-304 must have a temperature equal to or higher than the temperature of the room in which conservation is carried out. Sharp temperature fluctuations during preservation are not allowed, as this may lead to condensation of moisture on the surface to be preserved.

Batteries and materials, which can cause corrosion (acids, alkalis, chemicals, and other aggressive materials), must not be present near the conservation site.

During the conservation period, it is not allowed to carry out such works in which the preserved surface may be contaminated with metal, paint and other dust. Oil stains, smudges and splashes of preservative grease are removed with a clean rag.

Lubricants are applied to the surface by spraying or smearing in the molten state. The grease layer should be solid, free of smudges, air bubbles and foreign inclusions and have a thickness of approximately 0.5 to 1.5 mm.

All materials used for preparatory operations and conservation should only be used if there is a certificate.

When preparing for short-term storage, M-304 must be packed in the factory container.

Preparation for long-term storage involves packing the product in a factory container and storing it in a warehouse. For long-term storage, the product is stored for 12 months in conditions excluding the ingress of atmospheric fallout and contamination on the preserved surfaces.

5 Packing certificate

M-304 is packed in a cardboard box with a plastic foam lodgment inside for fixing.

M-304 is packed at the manufacturer according to the requirements of GOST ISO 9001-2015.

Item factory number: _____

Manufactory date: _____

Packing date: _____

Packed by: _____
(signature)

Accepted after packaging by: _____
(signature)

6 Certificate of acceptance

M-304 complies with the organization's standard GOST R ISO 9001-2015 and is recognized as serviceable.

Responsible for quality control: _____
(signature)

7 Disposal information

After the end of the service life, if it is impossible to restore the product to a working condition, the product should be disposed in accordance with the following requirements:

- ferrous metal products according to GOST 2787-75. Secondary ferrous metals;
- non-ferrous metal products according to GOST R 54564-2011. Scrap and non-ferrous waste;
- electrical products according to "Methodology for the comprehensive utilization of secondary precious metals from used computer equipment", approved by the State Committee of the Russian Federation for telecommunications (July 9, 1999, #IK-P8-5pr.).

