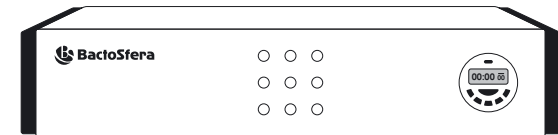




ORBB

BACTERICIDAL RECIRCULATORS

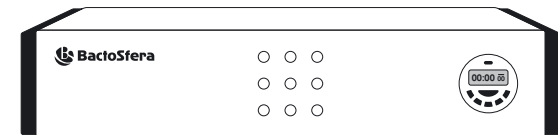


2023



ORBB

BACTERICIDAL RECIRCULATORS



2023

NOTE



It is obligatory to read the product's passport before using it.

*The structure, design, replenishment of the product may be changed by the Producer without prior notice to the Buyer.

NOTE



It is obligatory to read the product's passport before using it.

*The structure, design, replenishment of the product may be changed by the Producer without prior notice to the Buyer.

WARRANTY

The warranty period is 5 years from the date of purchase of the Product (sales receipt, cash register receipt, invoice, etc.).

The warranty conditions are indicated in the warranty card, which is an inalienable part of this passport.

The absence of a warranty card gives the Manufacturer the right to refuse warranty service.

PRODUCER



BactoSfera®
BACTOSFERA LLC
Ukraine, 03124, Kiev, Vatslav Havel boulevard 8
+38 044 290 78 78
bactosfera.ua



Certified by Certification authority "PROMSTANDARD"
Declared on accordance
Approved by the State Food Safety Service of Ukraine
Complies with European regulations and directives of
Production of European quality ISO 13485 and ISO 9001

WARRANTY

The warranty period is 5 years from the date of purchase of the Product (sales receipt, cash register receipt, invoice, etc.).

The warranty conditions are indicated in the warranty card, which is an inalienable part of this passport.

The absence of a warranty card gives the Manufacturer the right to refuse warranty service.

PRODUCER



BactoSfera®
BACTOSFERA LLC
Ukraine, 03124, Kiev, Vatslav Havel boulevard 8
+38 044 290 78 78
bactosfera.ua



Certified by Certification authority "PROMSTANDARD"
Declared on accordance
Approved by the State Food Safety Service of Ukraine
Complies with European regulations and directives of
Production of European quality ISO 13485 and ISO 9001

REPLENISHMENT

1. Recirculators 1 piece
2. Passport 1 piece
3. Warranty 1 piece
4. Packaging 1 piece

ACCESSORIES

- Stand for the ORBB STAND recirculator
- Dust filters ORBB FILTER
- Ultraviolet bactericidal lamps BactoSfera of BS series

CERTIFICATION

BactoSfera ORBB series bactericidal recirculators that are produced in serial,

The code of the State classifier of products and services is 26.60.13-00.00, the code of Ukrainian classification of goods of foreign economic activity is 9018 20 00 00.,

are made according to Technical conditions of Ukraine 26.6-39621673-001:2020, "Ultraviolet bactericidal devices",

meet the requirements of: Technical regulations regarding medical devices, approved by the Resolution of the Cabinet of Ministers of Ukraine № 753 dated 02.10.2013; State Standard of Ukraine EN 60601-1: 2015; State Standard of Ukraine EN 60601-1-2: 2015,

meet the requirements of European Regulations and Directives: European Medical Devices REGULATION (EU) 2017/745, Electromagnetic Compatibility (EMC) DIRECTIVE 2014/30 / EU, Low Voltage (LVD) DIRECTIVE 2014/35 / EU.

REPLENISHMENT

1. Recirculators 1 piece
2. Passport 1 piece
3. Warranty 1 piece
4. Packaging 1 piece

ACCESSORIES

- Stand for the ORBB STAND recirculator
- Dust filters ORBB FILTER
- Ultraviolet bactericidal lamps BactoSfera of BS series

CERTIFICATION

BactoSfera ORBB series bactericidal recirculators that are produced in serial,

The code of the State classifier of products and services is 26.60.13-00.00, the code of Ukrainian classification of goods of foreign economic activity is 9018 20 00 00.,

are made according to Technical conditions of Ukraine 26.6-39621673-001:2020, "Ultraviolet bactericidal devices",

meet the requirements of: Technical regulations regarding medical devices, approved by the Resolution of the Cabinet of Ministers of Ukraine № 753 dated 02.10.2013; State Standard of Ukraine EN 60601-1: 2015; State Standard of Ukraine EN 60601-1-2: 2015,

meet the requirements of European Regulations and Directives: European Medical Devices REGULATION (EU) 2017/745, Electromagnetic Compatibility (EMC) DIRECTIVE 2014/30 / EU, Low Voltage (LVD) DIRECTIVE 2014/35 / EU.

CONTENT

GENERAL INFORMATION 4
APPLICATION SPHERE 4
OPERATING PRINCIPLES..... 4
TYPE OF EXPLOITATION OF RECIRCULATORS 5
INDICATORS OF PERFORMANCE OF BACTERICIDAL LAMPS 6
WHAT TO DO IF THE LAMP OF INDICATOR IS OFF? 7
TRANSPORTATION AND STORAGE 7
MAINTENANCE (TECHNICAL SERVICE) 8
NOMENCLATURE 9
SPECIFICATIONS 10
TIMER 12
WHAT TO DO IF THE TIMER DOES NOT FUNCTION? 17
REPLENISHMENT 18
ACESSORIES 18
CERTIFICATION 18
GUARANTEE 19
PRODUCER 19

CONTENT

GENERAL INFORMATION 4
APPLICATION SPHERE 4
OPERATING PRINCIPLES..... 4
TYPE OF EXPLOITATION OF RECIRCULATORS 5
INDICATORS OF PERFORMANCE OF BACTERICIDAL LAMPS 6
WHAT TO DO IF THE LAMP OF INDICATOR IS OFF? 7
TRANSPORTATION AND STORAGE 7
MAINTENANCE (TECHNICAL SERVICE) 8
NOMENCLATURE 9
SPECIFICATIONS 10
TIMER 12
WHAT TO DO IF THE TIMER DOES NOT FUNCTION? 17
REPLENISHMENT 18
ACESSORIES 18
CERTIFICATION 18
GUARANTEE 19
PRODUCER 19

GENERAL INFORMATION

A **bactericidal recirculator** is a closed-type device that is used for safe quartzing (disinfection) of indoor air. Designed to work in the presence and absence of people in the treated room. Absolutely safe for people, animals and plants. Does not require room ventilation.

Kills (inactivates) viruses, bacteria, mould, fungus, yeast, spores and other infectious microorganisms. The absorbed dose of ultraviolet radiation by DNA and RNA molecules of microbes leads to their immediate death.

Quartzing of premises is especially effective for preventing diseases during the period of acute respiratory viral infections (ARVI, ARI), epidemics and influenza pandemics.

APPLICATION SPHERE

It is widely used in everyday life (houses, apartments, any living quarters), in business (offices, workshops, production, hotels, restaurants, cafes, shops, hairdressing salons and other commercial premises), in medicine (clinics, hospitals, maternity hospitals), in kindergartens, schools, universities, crowded cities (trading floors, theaters, cinemas, gyms, canteens, etc.).

OPERATING PRINCIPLE

Air, with the help of fans, passes through the recirculator body, in the middle of which the process of disinfection with bactericidal lamps takes place.

GENERAL INFORMATION

A **bactericidal recirculator** is a closed-type device that is used for safe quartzing (disinfection) of indoor air. Designed to work in the presence and absence of people in the treated room. Absolutely safe for people, animals and plants. Does not require room ventilation.

Kills (inactivates) viruses, bacteria, mould, fungus, yeast, spores and other infectious microorganisms. The absorbed dose of ultraviolet radiation by DNA and RNA molecules of microbes leads to their immediate death.

Quartzing of premises is especially effective for preventing diseases during the period of acute respiratory viral infections (ARVI, ARI), epidemics and influenza pandemics.

APPLICATION SPHERE

It is widely used in everyday life (houses, apartments, any living quarters), in business (offices, workshops, production, hotels, restaurants, cafes, shops, hairdressing salons and other commercial premises), in medicine (clinics, hospitals, maternity hospitals), in kindergartens, schools, universities, crowded cities (trading floors, theaters, cinemas, gyms, canteens, etc.).

OPERATING PRINCIPLE

Air, with the help of fans, passes through the recirculator body, in the middle of which the process of disinfection with bactericidal lamps takes place.

WHAT TO DO IF THE TIMER DOES NOT FUNCTION?



ATTENTION! If, in case the recirculator is connected to the mains, but no information is displayed on the timer display and the recirculator is functioning or not working, then it is necessary to:

- 1. Wait one minute with the power on to charge the timer battery ;
- 2. Press the round button "C" with a sharp object, for example, with a pen or pencil - the timer will turn on, and the recirculator will stop (stop working), if it was functioning before;
- 3. For continuously work of the recirculator - select the "ON" mode by alternately pressing the "MANUAL" button. After that, if necessary, you can make other timer settings.
- 4. If the above steps did not help, contact the service center.

Most often, this situation occurs after a long break in the operation of the recirculator when the power supply is disconnected from the mains. To avoid this, follow the recommendations:

Recommendation. Do not unplug the recirculator. If it is necessary to stop the work of the recirculator or vice versa, just use the power supply mode "OFF" and "ON" for the timers, respectively. This will keep the battery charge at a constant level, provide a stable timer memory and avoid crashes of the software settings you created.

WHAT TO DO IF THE TIMER DOES NOT FUNCTION?



ATTENTION! If, in case the recirculator is connected to the mains, but no information is displayed on the timer display and the recirculator is functioning or not working, then it is necessary to:

- 1. Wait one minute with the power on to charge the timer battery ;
- 2. Press the round button "C" with a sharp object, for example, with a pen or pencil - the timer will turn on, and the recirculator will stop (stop working), if it was functioning before;
- 3. For continuously work of the recirculator - select the "ON" mode by alternately pressing the "MANUAL" button. After that, if necessary, you can make other timer settings.
- 4. If the above steps did not help, contact the service center.

Most often, this situation occurs after a long break in the operation of the recirculator when the power supply is disconnected from the mains. To avoid this, follow the recommendations:

Recommendation. Do not unplug the recirculator. If it is necessary to stop the work of the recirculator or vice versa, just use the power supply mode "OFF" and "ON" for the timers, respectively. This will keep the battery charge at a constant level, provide a stable timer memory and avoid crashes of the software settings you created.

Example 2 (programming a simple work schedule)

An example of programming a work schedule that is suitable for most cases. Recirculator auto-on at 9:00 and auto-off at 18:00 around the clock (Monday through Sunday). To do this, you need to create one program by following these steps:

1. Press and release the "⏸" button - the display will show "ON 1".
2. Press or hold "D +" until the display shows "MO, TU, WE, TH, FR, SA, SU".
3. Press or hold "H +" until the display shows 9:00.
4. Press and release "⏸" - the display will show "OFF 1".
5. Press or hold "D +" until the display shows "MO, TU, WE, TH, FR, SA, SU".
6. Press or hold "H +" until 18:00 appears on the screen.
7. Press and release the button "⏸" to end the program. All is ready!

6. Setting the recirculator power supply - included / auto / excluded

Power modes cannot be changed during software settings.

6.1. Press the MANUAL button to select one of three modes.

6.2. Programs can only be released in AUTO mode. If the AUTO mode is selected, the timer works according to the settings. If "ON" or "OFF" mode is selected, the timer does not work and all programs are ignored. If the "ON" mode is selected, the power supply to the recirculator is always on and the recirculator works continuously. If the "OFF" mode is selected, the power supply is always disconnected and, accordingly, the recirculator does not work.

6.3. If you change the "ON" mode to "AUTO", the timer will save the "ON" setting for the next timer reset.

Example 2 (programming a simple work schedule)

An example of programming a work schedule that is suitable for most cases. Recirculator auto-on at 9:00 and auto-off at 18:00 around the clock (Monday through Sunday). To do this, you need to create one program by following these steps:

1. Press and release the "⏸" button - the display will show "ON 1".
2. Press or hold "D +" until the display shows "MO, TU, WE, TH, FR, SA, SU".
3. Press or hold "H +" until the display shows 9:00.
4. Press and release "⏸" - the display will show "OFF 1".
5. Press or hold "D +" until the display shows "MO, TU, WE, TH, FR, SA, SU".
6. Press or hold "H +" until 18:00 appears on the screen.
7. Press and release the button "⏸" to end the program. All is ready!

6. Setting the recirculator power supply - included / auto / excluded

Power modes cannot be changed during software settings.

6.1. Press the MANUAL button to select one of three modes.

6.2. Programs can only be released in AUTO mode. If the AUTO mode is selected, the timer works according to the settings. If "ON" or "OFF" mode is selected, the timer does not work and all programs are ignored. If the "ON" mode is selected, the power supply to the recirculator is always on and the recirculator works continuously. If the "OFF" mode is selected, the power supply is always disconnected and, accordingly, the recirculator does not work.

6.3. If you change the "ON" mode to "AUTO", the timer will save the "ON" setting for the next timer reset.

TYPE OF EXPLOITATION OF RECIRCULATORS

Stationary

The ORBB series recirculators are horizontal (ORBB Gorizont) and vertical (ORBB Vertical).

Fastened with screws to a wall or ceiling. They are connected with a three meter wire to an socket. It is recommended to carry out the installation in such a way that the recirculators are powered directly from the mains and operated from the wall switch. For wall mounting, place the recirculator on an open section of the wall at a height of 20-50 cm from the ceiling. For premises with high ceilings, it is recommended to place the recirculators in a suspended position at a distance of about three meters from the floor.

Portable

With the help of an additional accessory - the ORBB STAND, the ORBB series recirculators can be used in a mobile portable version. This makes it possible to conveniently quartz all rooms in turn

ATTENTION! The obligatory condition for mounting the recirculator is to provide free space for air inlet and outlet at both ends of the case, on which the fans are located (at least 1 meter).

TYPE OF EXPLOITATION OF RECIRCULATORS

Stationary

The ORBB series recirculators are horizontal (ORBB Gorizont) and vertical (ORBB Vertical).

Fastened with screws to a wall or ceiling. They are connected with a three meter wire to an socket. It is recommended to carry out the installation in such a way that the recirculators are powered directly from the mains and operated from the wall switch. For wall mounting, place the recirculator on an open section of the wall at a height of 20-50 cm from the ceiling. For premises with high ceilings, it is recommended to place the recirculators in a suspended position at a distance of about three meters from the floor.

Portable

With the help of an additional accessory - the ORBB STAND, the ORBB series recirculators can be used in a mobile portable version. This makes it possible to conveniently quartz all rooms in turn

ATTENTION! The obligatory condition for mounting the recirculator is to provide free space for air inlet and outlet at both ends of the case, on which the fans are located (at least 1 meter).

INDICATOR OF PERFORMANCE FOR BACTERICIDAL LAMPS

When the recirculator is connected to the power grid, three display options are possible:

1.



- **Bright blue light:** the lamp is in normal working condition;
2.



- **Pink light:** the effective life of the lamp has dried up, you need to change the lamp to a new one;
3.



- **Absence of light:** the lamp does not function (burned out, the contacts have come off the lamp holders, the trigger is out of order), you need to contact the service center

Recommendation. If there is no indicator light, then before contacting the service center, please make sure that the lamp is properly installed in the lamp holders. To do this, it is necessary to open the recirculator case by unscrewing the connecting screws, take out the lamp and put it back into the lamp holders, turning it until it clicks.



ATTENTION! If the bactericidal lamp is broken, it is necessary to carefully collect all large parts of the lamp with rubber gloves and sweep up small fragments. Rinse the place where the lamp broke with a 1% solution of potassium permanganate. Ventilate thoroughly.

INDICATOR OF PERFORMANCE FOR BACTERICIDAL LAMPS

When the recirculator is connected to the power grid, three display options are possible:

1.



- **Bright blue light:** the lamp is in normal working condition;
2.



- **Pink light:** the effective life of the lamp has dried up, you need to change the lamp to a new one;
3.



- **Absence of light:** the lamp does not function (burned out, the contacts have come off the lamp holders, the trigger is out of order), you need to contact the service center

Recommendation. If there is no indicator light, then before contacting the service center, please make sure that the lamp is properly installed in the lamp holders. To do this, it is necessary to open the recirculator case by unscrewing the connecting screws, take out the lamp and put it back into the lamp holders, turning it until it clicks.



ATTENTION! If the bactericidal lamp is broken, it is necessary to carefully collect all large parts of the lamp with rubber gloves and sweep up small fragments. Rinse the place where the lamp broke with a 1% solution of potassium permanganate. Ventilate thoroughly.

switch-on time settings

- 5.2. Press or hold down the "D +" button alternately to set the desired day or group of days. Also set the time with the "H +" and "M +" buttons.
- 5.3. Press the "⌚" button to complete the first setting of the switch-on time and start setting the switch-off time - the display will show "OFF 1." Repeat point 5.2. to set the switch-off time.
- 5.4. Press "⌚" again to complete the switch-off setting in the first program and start the next switch-on setting (second program). Repeat the points 5.2 5.3to set the required number of ON + OFF programs (max. 10 programs). To quickly view the preset program settings - press and hold the "⌚" button for two seconds. Switch-on time settings.
- 5.5. After completing the setting, press "⏸" the button. That's it, the timer is ready to function.

Example 1 (programming a complex work schedule)

It is necessary to program the recirculator auto-on at 8:30, auto-off at 17:00 from Monday to Friday and shutdowns at 1:00 at lunchtime from 12:45 to 13:45, on Saturday and Sunday the recirculator does not work. To do this, you need to create two programs by following these steps:

1. Installation of the first program (on - 8:30, off - 12:45). Press and release the «⌚» button - the display will show «ON 1».
2. Press or hold «D +» until «MO, TU, WE, TH, FR» appears on the display.
3. Press or hold «H +» until the display shows 8:00.
4. Press or hold «M +» until the display shows 8:30
5. Press and release «⌚» - the display will show "OFF 1".
6. To configure the recirculator exclusion, repeat point 3 and point 4 until 12:45 is displayed.
7. Press and release the «⌚» button - the display will show «ON 2». To install the second program (on - 13:45, off - 17:00) select the same days of the week «MO, TU, WE, TH, FR» and follow p. 3, 4, 5, 6 to set the switch-on times to 13:45 and 17:00 to exclude «OFF 2», respectively.
8. Press and release «⏸» button to end the second program. All is ready

switch-on time settings

- 5.2. Press or hold down the "D +" button alternately to set the desired day or group of days. Also set the time with the "H +" and "M +" buttons.
- 5.3. Press the "⌚" button to complete the first setting of the switch-on time and start setting the switch-off time - the display will show "OFF 1." Repeat point 5.2. to set the switch-off time.
- 5.4. Press "⌚" again to complete the switch-off setting in the first program and start the next switch-on setting (second program). Repeat the points 5.2 5.3to set the required number of ON + OFF programs (max. 10 programs). To quickly view the preset program settings - press and hold the "⌚" button for two seconds. Switch-on time settings.
- 5.5. After completing the setting, press "⏸" the button. That's it, the timer is ready to function.

Example 1 (programming a complex work schedule)

It is necessary to program the recirculator auto-on at 8:30, auto-off at 17:00 from Monday to Friday and shutdowns at 1:00 at lunchtime from 12:45 to 13:45, on Saturday and Sunday the recirculator does not work. To do this, you need to create two programs by following these steps:

1. Installation of the first program (on - 8:30, off - 12:45). Press and release the «⌚» button - the display will show «ON 1».
2. Press or hold «D +» until «MO, TU, WE, TH, FR» appears on the display.
3. Press or hold «H +» until the display shows 8:00.
4. Press or hold «M +» until the display shows 8:30
5. Press and release «⌚» - the display will show "OFF 1".
6. To configure the recirculator exclusion, repeat point 3 and point 4 until 12:45 is displayed.
7. Press and release the «⌚» button - the display will show «ON 2». To install the second program (on - 13:45, off - 17:00) select the same days of the week «MO, TU, WE, TH, FR» and follow p. 3, 4, 5, 6 to set the switch-on times to 13:45 and 17:00 to exclude «OFF 2», respectively.
8. Press and release «⏸» button to end the second program. All is ready

3. Preparing the timer for work.

- 3.1. When you turn on the recirculator for the first time to the 220 V network, you need to charge the timer battery for about 14 hours (100% charge of an empty battery). Reserve - 100 hours.
- 3.2. Delete all information after charging the battery by pressing the round button "C" with a sharp object, for example, with a pen or pencil.
- 3.3. Now you can make timer settings (setting the current time and programs, setting the power supply (on / auto / off), the floating switch function, the choice of 12 or 24 hour mode, the switching to summer time).

4. Setting the current time.

- 4.1. HPress and hold the button «⌚», press the «D +» button until the current day of the week appears, then set the current time in the same way by pressing the «H +» and «M +» buttons. To quickly search for the desired day, hour or minute, keep pressed (hold down) the corresponding button «D +», «H +» or «M +» until the required value appears.
- 4.2. Release the button «⌚» - the day of the week and time will be set.
- 4.3. To reset the wrong time, repeat the above steps.

5. Installation of applications.

When checking programs, make sure that the settings do not overlap, especially when using the block of variations. If program settings overlap, then turning on and off the recirculator will be performed in accordance with the time set in the program, and not with the program number, as usual. In this case the OFF program will then take precedence over the ON program.

- 5.1. Press the «Ⓟ» button once - the display will show "ON 1." Now you can make the first settings for the

3. Preparing the timer for work.

- 3.1. When you turn on the recirculator for the first time to the 220 V network, you need to charge the timer battery for about 14 hours (100% charge of an empty battery). Reserve - 100 hours.
- 3.2. Delete all information after charging the battery by pressing the round button "C" with a sharp object, for example, with a pen or pencil.
- 3.3. Now you can make timer settings (setting the current time and programs, setting the power supply (on / auto / off), the floating switch function, the choice of 12 or 24 hour mode, the switching to summer time).

4. Setting the current time.

- 4.1. HPress and hold the button «⌚», press the «D +» button until the current day of the week appears, then set the current time in the same way by pressing the «H +» and «M +» buttons. To quickly search for the desired day, hour or minute, keep pressed (hold down) the corresponding button «D +», «H +» or «M +» until the required value appears.
- 4.2. Release the button «⌚» - the day of the week and time will be set.
- 4.3. To reset the wrong time, repeat the above steps.

5. Installation of applications.

When checking programs, make sure that the settings do not overlap, especially when using the block of variations. If program settings overlap, then turning on and off the recirculator will be performed in accordance with the time set in the program, and not with the program number, as usual. In this case the OFF program will then take precedence over the ON program.

- 5.1. Press the «Ⓟ» button once - the display will show "ON 1." Now you can make the first settings for the

WHAT TO DO IF THE LAMP OPERATION (ability to work) INDICATOR IS OFF?

If, in case the recirculator is switched on for the first time, and the lamp operation indicator does not light up, make sure that the bactericidal lamp is properly installed in the lamp holders.

To do this, turn off the power supply, open the recirculator case by unscrewing the connecting screws, take out the lamp and put it back in the lamp holders, clockwise 45 degrees to the click.

If the above steps did not help, contact the service center.

TRANSPORTATION AND STORAGE

Rules for the transportation and storage of bactericidal recirculators are obligatory to realise by user:

1. Transportation is carried out in packaging in compliance with measures of protection against external influences and in accordance with the standards of cargo transportation.
2. Transportation is possible at temperatures ranging from -25 ° C to +45 ° C. After transportation in winter period or after being in a cold premise ($t \leq 5^{\circ} \text{C}$), the recirculator should be kept at room temperature for 1-2 hours before being connected to the electrical plug.
3. Store in producer's packaging in closed premises at temperatures from +5 ° C to +40 ° C and relative humidity up to 80%. The air must be free of impurities that caused corrosion.

WHAT TO DO IF THE LAMP OPERATION (ability to work) INDICATOR IS OFF?

If, in case the recirculator is switched on for the first time, and the lamp operation indicator does not light up, make sure that the bactericidal lamp is properly installed in the lamp holders.

To do this, turn off the power supply, open the recirculator case by unscrewing the connecting screws, take out the lamp and put it back in the lamp holders, clockwise 45 degrees to the click.

If the above steps did not help, contact the service center.

TRANSPORTATION AND STORAGE

Rules for the transportation and storage of bactericidal recirculators are obligatory to realise by user:

1. Transportation is carried out in packaging in compliance with measures of protection against external influences and in accordance with the standards of cargo transportation.
2. Transportation is possible at temperatures ranging from -25 ° C to +45 ° C. After transportation in winter period or after being in a cold premise ($t \leq 5^{\circ} \text{C}$), the recirculator should be kept at room temperature for 1-2 hours before being connected to the electrical plug.
3. Store in producer's packaging in closed premises at temperatures from +5 ° C to +40 ° C and relative humidity up to 80%. The air must be free of impurities that caused corrosion.

MAINTENANCE (Technical service)



Periodic maintenance of the recirculator by the user is obligatory for the exploitation of the product (item) in order to achieve the producer's warranty period.

- 1. Remove the dust filters and rinse them under normal pressure of water. If the filters are worn out (frayed, torn, existing holes), then they must be replaced with new ones.
- 2. Wipe the bactericidal lamps thoroughly with cotton humoral with alcohol.
- 3. Carry out a wet sanitization of the recirculator inside and outside (wipe off dust with a damp cloth).
- 4. Clean and lubricate the moving rotating parts of the fans.

The frequency of maintenance depends on the level of dust pollution in the premise and the duration (amount of time) of using the recirculator. For example:

- **In cases of living room areas**, it is recommended to carry out wet sanitization once every 3 months, wash filters and wipe lamps once a month, lubricate the fans once a year.
- **In heavily dust-contaminated premises** (for example, poultry farms, pigsties, etc.), it is recommended to wet sanitize once a month, lubricate the fans once a year, and wash filters and wipe the lamps at least once a week.
- **In case of continuous round-the-clock functioning of the recirculator**, it is necessary to lubricate its fans at least once a month.
- **In case of unusual noise from the recirculator**, lubricate the fans immediately!

MAINTENANCE (Technical service)



Periodic maintenance of the recirculator by the user is obligatory for the exploitation of the product (item) in order to achieve the producer's warranty period.

- 1. Remove the dust filters and rinse them under normal pressure of water. If the filters are worn out (frayed, torn, existing holes), then they must be replaced with new ones.
- 2. Wipe the bactericidal lamps thoroughly with cotton humoral with alcohol.
- 3. Carry out a wet sanitization of the recirculator inside and outside (wipe off dust with a damp cloth).
- 4. Clean and lubricate the moving rotating parts of the fans.

The frequency of maintenance depends on the level of dust pollution in the premise and the duration (amount of time) of using the recirculator. For example:

- **In cases of living room areas**, it is recommended to carry out wet sanitization once every 3 months, wash filters and wipe lamps once a month, lubricate the fans once a year.
- **In heavily dust-contaminated premises** (for example, poultry farms, pigsties, etc.), it is recommended to wet sanitize once a month, lubricate the fans once a year, and wash filters and wipe the lamps at least once a week.
- **In case of continuous round-the-clock functioning of the recirculator**, it is necessary to lubricate its fans at least once a month.
- **In case of unusual noise from the recirculator**, lubricate the fans immediately!

- 2.4. Timer accuracy: ± 1 min / month
- 2.5. Battery reserve: 1.2 V> 100 h.
- 2.6. Selection of recirculator power supply modes ON / AUTO / OFF (on / auto / off).
- 2.7. Fifteen compositions of the days of the week (see the table below).

available for programming a combination of days of the week							
№	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	MO	TU	WE	TH	FR	SA	SU
2	MO						
3		TU					
4			WE				
5				TH			
6					FR		
7						SA	
8							SU
9	MO		WE		FR		
10		TU		TH		SA	
11						SA	SU
12	MO	TU	WE				
13				TH	FR	SA	
14	MO	TU	WE	TH	FR	SA	
15	MO	TU	WE	TH	FR		

- 2.4. Timer accuracy: ± 1 min / month
- 2.5. Battery reserve: 1.2 V> 100 h.
- 2.6. Selection of recirculator power supply modes ON / AUTO / OFF (on / auto / off).
- 2.7. Fifteen compositions of the days of the week (see the table below).

available for programming a combination of days of the week							
№	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	MO	TU	WE	TH	FR	SA	SU
2	MO						
3		TU					
4			WE				
5				TH			
6					FR		
7						SA	
8							SU
9	MO		WE		FR		
10		TU		TH		SA	
11						SA	SU
12	MO	TU	WE				
13				TH	FR	SA	
14	MO	TU	WE	TH	FR	SA	
15	MO	TU	WE	TH	FR		

TIMER

1. Button functions

- 1.1. **Round button «C»** - deleting all data from memory, including the exact time and all programs, and setting the operating mode of the timer "AUTO".
- 1.2. **«MANUAL» button** - selection of operating mode of timer:
- ON - the power supply to the recirculator is always switched on, but the timer does not function (all programs are ignored)
 - AUTO - the timer works in accordance with the settings (program execution mode);
 - OFF - the power supply to the recirculator is permanently switched off and the timer does not function (all programs are ignored).
- 1.3. **Button «P» - program settings in combination with buttons "H +", "M +", "D +":**
- for installation of a 12 or 24-hour format - with the «G» button.
- 1.4. **Button «G»** - is used:
- for installation on exact time in combination with buttons «H +», «M +», «D +»;
 - for installation of a 12 or 24-hour format - with the button «P»;
 - for transferring to summer time - with the «MANUAL» button.
- 1.5. **Button «H+»** - setting the hour in combination with the button «P» or «G» button.
- 1.6. **Button «M+»** - setting the minutes in combination with the button «P» or «G» button.
- 1.7. **Button «D+»** - setting the days od the week in combination with the button «P» or «G» button.

2. General characteristics.

- 2.1. Possibility to create up to 20 programs inclusively for automatic switching on and automatic switching off of the recirculator.
- 2.2. Display with seconds.
- 2.3. Minimum time setting: 1 minute.

TIMER

1. Button functions

- 1.1. **Round button «C»** - deleting all data from memory, including the exact time and all programs, and setting the operating mode of the timer "AUTO".
- 1.2. **«MANUAL» button** - selection of operating mode of timer:
- ON - the power supply to the recirculator is always switched on, but the timer does not function (all programs are ignored)
 - AUTO - the timer works in accordance with the settings (program execution mode);
 - OFF - the power supply to the recirculator is permanently switched off and the timer does not function (all programs are ignored).
- 1.3. **Button «P» - program settings in combination with buttons "H +", "M +", "D +":**
- for installation of a 12 or 24-hour format - with the «G» button.
- 1.4. **Button «G»** - is used:
- for installation on exact time in combination with buttons «H +», «M +», «D +»;
 - for installation of a 12 or 24-hour format - with the button «P»;
 - for transferring to summer time - with the «MANUAL» button.
- 1.5. **Button «H+»** - setting the hour in combination with the button «P» or «G» button.
- 1.6. **Button «M+»** - setting the minutes in combination with the button «P» or «G» button.
- 1.7. **Button «D+»** - setting the days od the week in combination with the button «P» or «G» button.

2. General characteristics.

- 2.1. Possibility to create up to 20 programs inclusively for automatic switching on and automatic switching off of the recirculator.
- 2.2. Display with seconds.
- 2.3. Minimum time setting: 1 minute.

Series	Group of models	Model
ORBB	ORBB 15	ORBB 15x1 Gorizont
		ORBB 15x2 Gorizont
		ORBB 15x3 Gorizont
		ORBB 15x6 Gorizont SUPERPOWER
		ORBB 15x1 Vertical
		ORBB 15x2 Vertical
	ORBB 30	ORBB 15x3 Vertical
		ORBB 15x6 Vertical SUPERPOWER
		ORBB 30x1 Gorizont
		ORBB 30x2 Gorizont
		ORBB 30x3 Gorizont
		ORBB 30x6 Gorizont SUPERPOWER
		ORBB 30x1 Vertical
		ORBB 30x2 Vertical
		ORBB 30x3 Vertical
		ORBB 30x6 Vertical SUPERPOWER
	ORBB 25	ORBB 25x1 Gorizont +100%
		ORBB 25x2 Gorizont +100%
		ORBB 25x3 Gorizont +100%
		ORBB 25x6 Gorizont SUPERPOWER +100%
		ORBB 25x1 Vertical +100%
		ORBB 25x2 Vertical +100%
		ORBB 25x3 Vertical +100%
		ORBB 25x6 Vertical SUPERPOWER +100%
	ORBB 55	ORBB 55x1 Gorizont +100%
		ORBB 55x2 Gorizont +100%
		ORBB 55x3 Gorizont +100%
		ORBB 55x6 Gorizont SUPERPOWER +100%
		ORBB 55x1 Vertical +100%
		ORBB 55x2 Vertical +100%
		ORBB 55x3 Vertical +100%
		ORBB 55x6 Vertical SUPERPOWER +100%

Series	Group of models	Model
ORBB	ORBB 15	ORBB 15x1 Gorizont
		ORBB 15x2 Gorizont
		ORBB 15x3 Gorizont
		ORBB 15x6 Gorizont SUPERPOWER
		ORBB 15x1 Vertical
		ORBB 15x2 Vertical
	ORBB 30	ORBB 15x3 Vertical
		ORBB 15x6 Vertical SUPERPOWER
		ORBB 30x1 Gorizont
		ORBB 30x2 Gorizont
		ORBB 30x3 Gorizont
		ORBB 30x6 Gorizont SUPERPOWER
		ORBB 30x1 Vertical
		ORBB 30x2 Vertical
		ORBB 30x3 Vertical
		ORBB 30x6 Vertical SUPERPOWER
	ORBB 25	ORBB 25x1 Gorizont +100%
		ORBB 25x2 Gorizont +100%
		ORBB 25x3 Gorizont +100%
		ORBB 25x6 Gorizont SUPERPOWER +100%
		ORBB 25x1 Vertical +100%
		ORBB 25x2 Vertical +100%
		ORBB 25x3 Vertical +100%
		ORBB 25x6 Vertical SUPERPOWER +100%
	ORBB 55	ORBB 55x1 Gorizont +100%
		ORBB 55x2 Gorizont +100%
		ORBB 55x3 Gorizont +100%
		ORBB 55x6 Gorizont SUPERPOWER +100%
		ORBB 55x1 Vertical +100%
		ORBB 55x2 Vertical +100%
		ORBB 55x3 Vertical +100%
		ORBB 55x6 Vertical SUPERPOWER +100%

