

THE PROCEDURE FOR CHECKING THE VOICE ALARM SYSTEM

1. Check the indication displayed on the front panel of the power supply unit:
 - a) The LED display of the power supply should indicate a voltage in the range of $22 \div 28.8V$ depending on the battery charge and ambient temperature.
 - b) The 230V AC LED should remain lit to indicate the presence of the supply voltage.
 - c) The AUX LED should remain lit to indicate the presence of the output voltage.
2. Check the output voltage after 230V AC power failure.
 - a) Simulate the lack of 230V AC mains voltage by disconnecting the main circuit breaker.
 - b) The 230V AC LED should go out.
 - c) The AUX LED should remain lit to indicate the presence of the output voltage.
If the indication panel is installed, the yellow indicator will light be lit and the alarm sound will be activated.
 - d) The EPS and ALARM technical outputs will change their status into opposite after 10s / 1min / 10min / 30min, depending on the "EPS" parameter set in the power supply configuration menu (the default setting is 10s).
 - e) Turn on the 230V AC mains voltage again. Indication should return to the initial status within a few seconds.
3. Check whether the lack of continuity in the battery circuit is properly indicated.
 - a) Disconnect one of the battery circuits (230V AC mains supply on) during normal operation of the power supply unit by disconnecting the fuse.
 - b) Within 5 minutes the PSU will start signaling a failure in the battery circuit.
 - c) The ALARM LED will start blinking.
 - d) The APS and ALARM technical outputs will change status into opposite.
If the indication panel is installed, the yellow indicator will light be lit and the alarm sound will be activated.
 - e) Turn on the fuse in the battery circuit again.
 - f) The power supply should return to normal operation, indicating the initial status, within 5 minutes after the battery test is completed. 1.
 - g) Repeat the a..f procedures for the second battery string.

BATTERY TEST REPORT

After installing and running the DSO system it is recommended to measure the battery parameters and prepare the measurement report. Next measurements should be made at least every 12 months (recommended every 6 months).

Preparing the measurement report and sending it within two weeks to the company's e-mail address serwis@pulsar.pl is one of the conditions for battery warranty claim.

When performing measurements, observe the following rules:

- Voltage measurements must be made with an accuracy of two decimals.
- The batteries should be fully charged. It can be assumed that this condition has been achieved if there has been no interruption in the supply of electricity and no tests of the sound system from the backup power source have been performed in the last 72 hours.
- The PSU runs a battery test, during which an approximately 3 sec. voltage drop can be observed, every 5 minutes. Make sure that the voltage is stable during the measurement process; if so, the measurement results can be saved
- The resistance of the battery circuit and the battery temperature can be read on the display of the DSO.

SERIAL NUMBER		CABINET CONFIGURATION CODE							
No.	Measurement date	Battery voltage [V]				Battery resistance [Ohm]		Battery temperature[°C]	Performed by
		String no. 1		String no. 2		String no. 1	String no. 2		
		Bat 1	Bat 2	Bat 3	Bat 4				
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

PULSAR K. BOGUSZ SP.J., Siedlec 150, 32-744 Łapczyca, District Court for Kraków-Śródmieście in Kraków,
XII Commercial Division of the National Court Register,
NCR 0000075204, Tax Identification Number: 683-00-12-136
www.pulsar.pl, www.zasilacze.pl
Customer service - Phone: (+48) 14 610 19 40, Fax: (+48) 14 610 19 50,
E-mail: serwis@pulsar.pl

GENERAL WARRANTY CONDITIONS

1. The warranty covers defects which already exist at the time when the unit is purchased.
2. The warranty includes free-of-charge repair or replacement with an appropriate equivalent (the selection is at the manufacturer's discretion).
3. The warranty is granted by the Guarantor: PULSAR K. BOGUSZ SP.J., Siedlec 150, 32-744 Łapczyca.
4. The warranty period runs from the date of manufacture. The warranty period is specified in the owner's manual supplied with the unit.
5. The warranty is valid only in the Republic of Poland.
6. The warranty is void in the case of:
 - a) Damages resulting from failure to follow instructions in the owner's manual;
 - b) Defects resulting from improper storage and transportation;
 - c) Damages to the components of the unit resulting from the use of incorrect voltage;

CAUTION!

In the case of supplying the device, directly or indirectly, with use of generators and UPS units or systems, the User should consult the parameters of the power supply units with the Guarantor;

- d) Defects resulting from changes in equipment design or repairs carried out by any unauthorized persons;
- e) Damages caused by faulty electrical installation;
- f) Any damages caused by force majeure;
- g) Natural wear of the components;
- h) The original serial number is changed, removed, or unreadable;

7. Warranty claims procedure:

- a) Before submitting a warranty claim in the case of incorrect operation of the device, make sure that everything has been done in accordance with the owner's manual.
- b) The warranty claim should be submitted immediately, preferably within 7 days from the occurrence of the defect.

Warranty claims can be submitted directly to the Manufacturer or the Guarantor - Phone: (+48) 14 610 19 40, Fax: (+48) 14 610 19 50, E-mail: serwis@pulsar.pl, or in writing to the address: PULSAR K.BOGUSZ SP.J., Siedlec 150, 32-744 Łapczyca – it is recommended to use the "Warranty claim form", available at website of the PULSAR Company.

http://www.pulsar.pl/pdf/gwarancja/Formularz_zgloszenia_reklamacyjnego_z_tytulu_gwarancji.pdf

- c) When making a warranty claim, the Customer is obliged to submit the proof of purchase (e.g. invoice, receipt, etc.).
- d) Do not use a defective device.
- e) The manufacturer is obliged to provide warranty repairs not later than within 15 days from the date of delivery of the item to the Manufacturer.
- f) The warranty does not exclude, limit or suspend the buyer's rights under the statutory warranty.

THE WARRANTY CONDITIONS FOR SLA BATTERIES - Additional arrangements

The presented warranty conditions for SLA batteries are valid in conjunction with [General Warranty Terms](#) of the PULSAR Company.

1. The battery will not be considered defective if its capacity during the warranty period has not dropped to **80 [%]** of the rated capacity.
2. The periodic maintenance of all batteries, including performing the appropriate measurements, shall be performed every **12** months from the installation. The measurement report, prepared in accordance with the guidelines contained in the "Installation" section, should be sent within two weeks to the company's e-mail address serwis@pulsar.pl. Presentation of the measurement results from all of required periodic maintenances is a **condition for warranty claim**.
3. The warranty applies only to batteries designed for **buffer operation**. **Cyclic batteries are not covered by this warranty**.
4. The warranty period will be reduced by 50 [%] for each sustained temperature rise of 8 [° C] above nominal operating temperature of the battery of 25 [°C].
5. The PULSAR company is **not responsible for**:
 - Batteries with unreadable serial number;
 - Damages resulting from improper charging or installation;
 - Mechanical damages to the enclosure and polarity terminals (clamp caps) caused by the installation, commissioning, and operation of the batteries;
 - Damages caused by fire, high temperature (overheating), explosion, or freezing;
 - Damages caused by misuse or negligence;
 - Damages caused by force majeure.
6. The PULSAR Company reserves the right to verify battery operating conditions by reading the operating history of the DSO power supply system. The data can be read remotely or locally by employees of the PULSAR company
7. In the case of unjustified claim, the claimant may be charged with costs incurred by the PULSAR Company.
8. The warranty is valid only upon presentation of the invoice and delivering the battery subjected to complaint along with a description of the defect at the expense of the claimant.