

PSAM-1 v1.1

Alarm Module



General Description

The PSAM-1 Alarm Module is dedicated for operation with PS10 v3.x, PS20 v3.x and PS15v24 v3.x buffered power supplies. The main purpose of module is to provide supervision of emergency condition which may occur on power supply. PSAM-1 may detect and signalize: low level of battery, battery failure and lack of AC supply. The PSAM-1 can be configured for autonomic or networked operation. When configured for autonomic mode each alarm detected by module is signalized on separate transistor output and on BUZZER. When module operate in networked mode it must be connected to some type of PRxx2 series access controller, in this case when any alarm is detected module send adequate messages to host device through Clock and Data lines. In network mode the transistor outputs are used for communication purposes and can not be utilized for alarm signalization. The PSAM-1 is delivered as printed board circuit module together with additional mounting items.

Autonomic Mode

In this mode the PSAM-1 signalize alarms on transistor outputs. The module offer three outputs marked as ACL, LB and BF. All outputs have the same electrical structure and are capable to sink up to 20mA current which is suitable to drive LED or 12VDC relay (coil resistance 600Ω or higher). Normally each transistor output remains in high impedance state, when triggered it shorts connected signal to supply minus. All outputs are electronically protected against current overload and voltages impulses which may occur during switching of inductive loads (e.g. coils). If at least one alarm is detected the PSAM-1 generate short acoustic BEEP every one minutes, the acoustic signalization ceases when all alarms disappear.

Networked Mode

In this mode the alarm module must be connected to some type of PRxx2 series access controllers, the ACL and LB lines are used in this case for communication with host device (access controller). In networked mode the PSAM-1 sends messages about alarms and actual voltage level which exist on power's supply DC output to access controller, alarms can be further presented on PC monitor screen as well as registered in events memory. When communication between alarm module and host device is corrupted the PSAM-1 internal buzzer starts to generate periodically short beep, the lack of communication with module is registered by access controller.

Connection Terminals

ACL Output (AC Lost)

In autonomic mode this output goes low when module detect a lack of AC supply which duration is longer then ~4 minutes. The output returns to normal condition immediately after AC supply return. In networked mode the ACL lines serve as DATA communication wire.

LB Output (Low Battery)

In autonomic mode this output goes low when module detect that the voltage on reserve battery falls below ~11.5V level, the alarm disappear when battery level returns above this level. In networked mode the LB lines serve as CLOCK communication wire.

BF Output (Battery Failure)

In autonomic mode this output goes low when module detect that during charging the voltage on reserve battery falls below ~11.0V level, the alarm disappear when battery level returns above this level. In networked mode the BF lines is not used.

Note: When Battery Failure and Low Battery alarm are active it may be caused be following reasons:

- battery protection fuse failure
- battery not connected
- the internal resistance of battery is high (battery damaged)

Installation

Disconnect AC and battery from power supply. Using mounting elements delivered together with PSAM-1 install alarm module above power's supply printed circuit board (see mounting diagram), connect alarm module to CON4 slot located on PS' board. Select adequate address on PSAM-1 configuration jumpers (for address settings refer to access controller manual) or leave jumpers open when device is dedicated for autonomic mode. Connect ACL and LB output lines to access controller or to another device which will provide alarm signalization (LED, Sire, Alarm Control Panel etc). When PSAM-1 and host device (access controller, control panel) are supplied from different power sources, connect both supply minuses together.

Jumper Settings Table			
ADDRESS 1	ADDRESS 0	RACS Mode	Mode
open	open	closed	RACS: Address ID=7
open	closed	closed	RACS: Address ID=6
closed	open	closed	RACS: Address ID=5
closed	closed	closed	RACS: Address ID=4
open	open	open	Autonomic

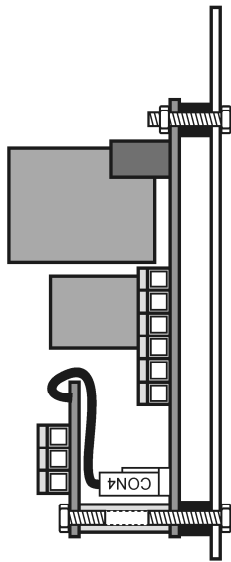
Note: Do not adjust potentiometers located on PS' power supply printed circuit board, those elements are factory preset. Any unauthorized adjust may lead to improper behavior of PSAM-1 module as well as malfunction in power supply operation.

Technical Specification	
Supply	10-16Vdc (retrieved from power supply through CON4 connector)
Current consumption	~15mA (delivered from power supply through CON4 connector)
Outputs	Three transistor outputs, 20mA max sink current, 30Vdc.
Voltage level measurement precision	±0,2V
Communication protocol (Networked mode)	Clock & Data (RACS protocol)
Max. communication distance to host (Networked mode)	150 m (500 ft)
Operating temperature	0-55°C
Relative humidity	10-95%
Dimensions	33 X 66



The symbol of a crossed-through waste bin on wheels means that the product must be disposed of at a separate collection point. This also applies to the product and all accessories marked with this symbol. Products labeled as such must not be disposed of with normal household waste, but should be taken to a collection point for recycling electrical and electronic equipment. Recycling helps to reduce the consumption of raw materials, thus protecting the environment.

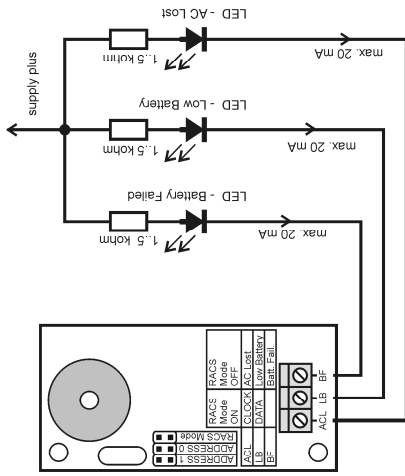
2 x tuleja M3X20mm
2 x M3X10mm



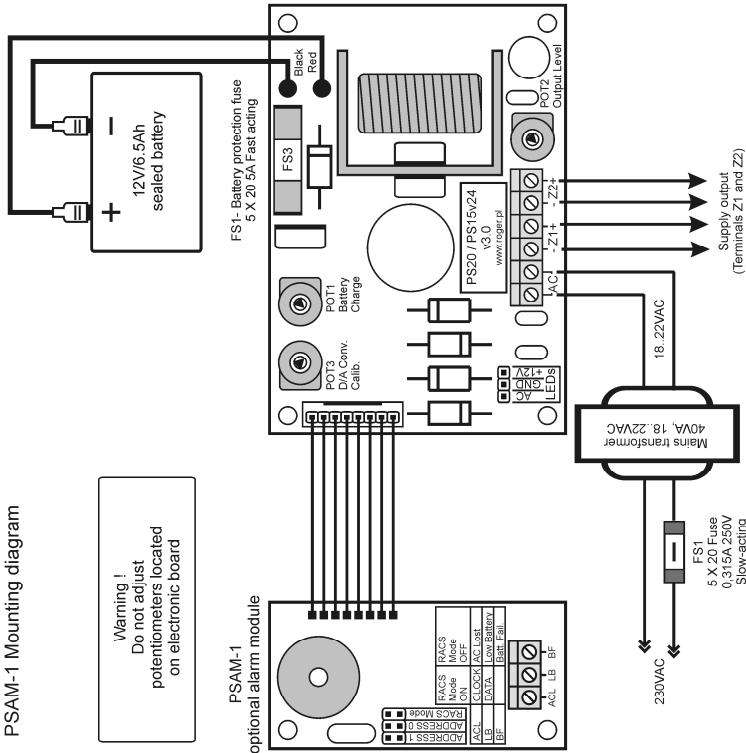
PSAM-1 Mounting diagram

Warning!
Do not adjust
potentiometers located
on electronic board

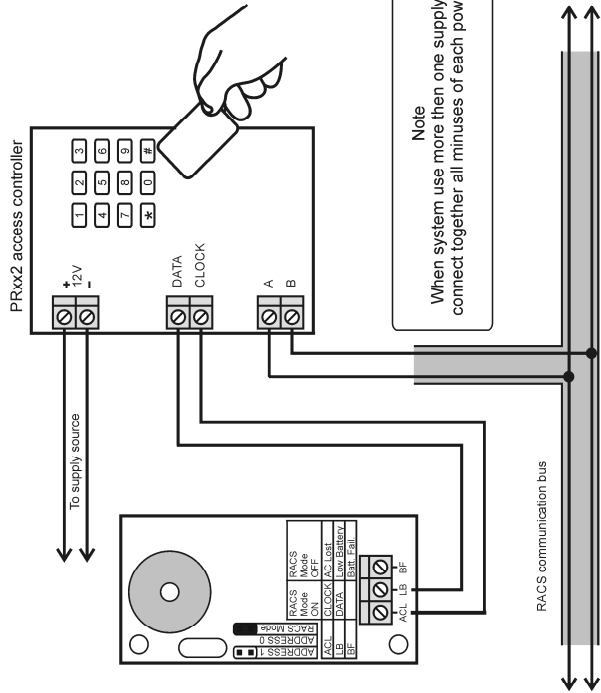
Configuration Jumpers	
JUMPER	Mode
RACS Mode ADDRESS 0	Autonomic
RACS Mode ADDRESS 1	
RACS Mode ADDRESS 0	RACS Mode Address=7
RACS Mode ADDRESS 1	
RACS Mode ADDRESS 0	RACS Mode Address=6
RACS Mode ADDRESS 1	
RACS Mode ADDRESS 0	RACS Mode Address=5
RACS Mode ADDRESS 1	
RACS Mode ADDRESS 0	RACS Mode Address=4
RACS Mode ADDRESS 1	



PSAM-1 autonomic mode - wiring diagram



PSAM-1 Installation diagrams



PSAM-1 networked mode - wiring diagram



RMA Form

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Tech. Support: +48 55 267 0126

<http://www.roger.pl>

Please note:

In the unlikely event you experience difficulties with your ROGER product, please contact ROGER's Technical Support Department to resolve the problem. They may be reached at **+48 55 2670126** or support@roger.pl Monday through Friday **8:00 A.M. to 4:00 P.M. (GMT + 1)**. You can also contact the Technical Support Department by **fax** at **+48 55 2720133**. If it is determined that you need to return the product, the following procedure must be followed to ensure prompt service.

RMA no.

Customer information:

Company Name:
Contact Name:
Street:
Code, City:
Country:
E-mail:
Contact phone:
Fax:

Product information:

Product Name:
Serial Number:
Date of Purchase:

Reason for return:

- Warranty repair:
 - Repair:
 - Complaint:
 - Wrong delivery:
 - Others:
-
(please specify)

Fault description:

what does not work, what is the reason for complaint, what can ROGER do for you ?

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If it is determined that you need to return the product, the following procedure must be followed to ensure prompt service.

1. Any product returned to ROGER must have an RMA number. ROGER will refuse any package that is returned without a valid RMA number.
2. ROGER products cannot be returned for any reason other than defective
3. Defective products will only be accepted in accordance with the ROGER's warranty requirements.
4. All RMA numbers will be valid for a period of not longer than 14 days.

Any package send to ROGER after 14 days of issuance will be refused and shipped back to you at additional cost.

5. If you purchased Roger product not directly from Roger company, please return it to the place where you bought it.
6. In order to receive RMA number please fill out the following form.
7. Once the completed form has been received and processed it will be returned to you with a RMA number appended. This is your authority to return the product.
8. Please ensure that this document accompanies the product when it is returned and that a copy is retained such that you can refer to it when requesting an update on the progress of a repair.
9. Use one RMA number per one returned product.
10. Put your RMA number on the shipping/address label
11. Please make sure that you always return product in appropriate packaging together with a RMA form in order to avoid damages during transit, You are advised to get proof of delivery
12. Some repairs may be chargeable and you will receive formal advice if this is the case.
13. If product returned as defective is found **not** to be defective, it will be returned back to the customer at his expenses. In that case the customer will be also charged with costs which may arise after triggering the RMA procedure.
14. If the product is beyond economical repair then the following options will be given:

Scrapped – This will occur automatically if ROGER does not receive a reply to three notices send to the customer at least in 5 days interval.

(There may be some exceptions to this) or if you instruct us during these communications.

Returned – However this will incur shipping charges.

Note: All repairs are dealt with as rapidly as possible although repair time is not guaranteed. Please contact us and we will try our best to suggest an estimated lead-time.

Notes

No.	Fault description (filled out by the customer)	Date of repair (filled out by the service)
1.		
2.		
3.		
4.		
5.		



Roger Worldwide Limited Warranty

(valid only with proof of purchase and when completely fulfilled)

ROGER Sp.j.
Gosciszewo 59,
82-416 Gosciszewo,
pomorskie, Poland

Tel: +48 55 272 0132
Fax: +48 55 272 0133
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PRODUCT INFORMATION:

Product Name:
.....
.....

Serial Number:

Date of Purchase, Purchase receipt:

WARRANTY TERMS:

ROGER sp.j. (Roger) Worldwide Limited Warranty is applicable worldwide and supersedes any other warranty.

WARRANTY

This limited warranty extends only to the original purchaser of the Roger product.

WARRANTY DURATION

Roger warrants to You (original purchaser) that for a period of one year (the "Warranty Period") from the date of original purchase, limited by the end of 3 years period starting with the date of manufacture, your Roger Product will be substantially free of defects in materials and workmanship under normal use.

WARRANTY COVERAGE

If the Product proves defective during the Warranty Period please contact Roger Technical Support. **BE SURE TO HAVE YOUR PROOF OF PURCHASE ON HAND WHEN CALLING.**

If ROGER receives defective product (together with a copy of your original proof of purchase and RMA Number), ROGER will either repair or replace parts which, under normal conditions of use and service, prove to be defective in material or workmanship.

No charge will be made for labor or parts with respect to defects covered by this warranty, provided that the work is done by Roger or a Roger authorized service center.

This warranty does not cover expenses incurred in the transportation, removal or reinstallation of the product, whether or not proven defective.

Replacements or repairs furnished under this warranty are subject to the same terms and conditions of the original warranty.

EXCLUSIONS AND LIMITATIONS

This warranty does not apply if the Product (a) has been altered, except by Roger, (b) has not been installed, operated, repaired, or maintained in accordance with instructions supplied by Roger, or (c) has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident. In addition, due to the continual development of new techniques for intruding upon and attacking networks, Roger does not warrant that the Product will be free of vulnerability to intrusion or attack.

This warranty does not cover repair or replacement where normal use has exhausted the life of a part or instrument.

ALL IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THE WARRANTY PERIOD. ALL OTHER EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF NON-INFRINGEMENT, ARE DISCLAIMED.

IN NO EVENT WILL ROGER BE LIABLE FOR ANY LOST DATA, REVENUE OR PROFIT, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, REGARDLESS OF THE THEORY OF LIABILITY (INCLUDING NEGLIGENCE), ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE THE PRODUCT (INCLUDING ANY SOFTWARE), EVEN IF ROGER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL ROGER' LIABILITY EXCEED THE AMOUNT PAID BY YOU (original purchaser) FOR THE PRODUCT, WITH THE LIMITATION THAT THE AMOUNT CAN NOT BE HIGHER THAN ROGER'S RECOMMENDED ENDUSER PRICE (WHICH IS AVAILABLE ON REQUEST DIRECTLY FROM ROGER).

The foregoing limitations will apply even if any warranty or remedy provided under this Agreement fails of its essential purpose. The terms of this warranty may not be varied by any person, whether or not purporting to represent or act on behalf of Roger.

This warranty represents the full extent of Roger's responsibility. This warranty shall become null and void in the event of a violation of the provisions of this limited warranty.

.....
Date, sign and stamp of the seller

