

RIP-12 SHUTTING OFF

- 1) Shut off the mains power supply 220 V.
- 2) Detach the battery.
- 3) Remove the fuse F1.
- 4) Disconnect the load circuit.

MAINTENANCE

The maintenance of RIP-12 is to be carried out annually. The main operations include:

- 1) RIP-12 visual inspection to discover mechanical injuries and to remove dirt or dust if presented.
- 2) Measuring the power output parameters and checking the device in conformance with items of SPECIFICATION.
- 3) LED and sound indication testing to meet the requirements of the above.
- 4) Proper RIP-12 firmly attaching, and contact tightening, and when necessary inspection.

WARRANTY

Manufacturer warrants RIP-12 Uninterrupted Power Supply to be free from defects and to operate in conformance with specification under normal transportation, mounting and maintenance for 18 months since putting it into operation, but no more than for 24 month since acceptance date (see below).

In the event of in-warranty failure the failed RIP-12 should be brought back to the manufacturer supplied with its damage certificate describing the defect and its acceptance certificate to evaluate the warranty status. Send your complaints to the manufacturer at the following address:

ZAO NVP BOLID

#4, Pionerskaya street, Korolyov, Moscow Region, Russia, 141070

Tel./fax +7 495 777-40-20, +7 495 516-93-72.

E-mail: info@bolid.ru, Web-site: www.bolid.com

ACCEPTANCE CERTIFICATE

RIP-12 Uninterrupted Power Supply model 02

Product Designation

Serial Number

Produced, tested by quality control department in compliance with state standards and specifications, packed by NVP BOLID Company and qualified as deliverable.

Q.C.

STAMP

Name

Date of Acceptance

BOLID
SECURITY SYSTEMS



ISO 9001

UNINTERRUPTED POWER SUPPLY RIP-12 model 02

INSTRUCTION MANUAL

GENERAL

Uninterrupted Power Supply RIP-12 model 02 (referred to as RIP-12 below) is designed to provide the electric power to various fire and intruder detectors, as long as control and indication equipment suited for uninterrupted 12 VDC.

RIP-12 is round-the-clock operating device with defined output parameters, sealed backup battery being tested and charged automatically. RIP-12 provides battery shutting off from load circuit in order to avoid its unacceptable discharge.

RIP-12 is equipped with light and audible indication of its current status, i.e. normal or no voltage, battery charge, output short failure or overload, battery missing or shutting down when discharged.

When operated, RIP-12 should be protected against atmospheric fallout and mechanical damage.

SPECIFICATION

AC Input Voltage Range	– from 187 to 242 VAC @ 50 Hz
Backup Power Supply	– battery «Delta» DTM1207 12 V @ 7 Ahr or analogous
Output Voltage Range	– 13.6 ± 0.6 VDC at both AC and charged battery powering; – 11.0 ± 0.5 VDC min provided the battery is discharged
Load Current Rating	– 2.0 A
Maximum Load Current	– 3.0 A within 10 minutes or 5 A within 2 minutes at both mains and battery powering, once an hour minimum
Input Current Consumption	– 0.3 A maximum for rating load
Ripple (mVp-p)×2	– 20 mV maximum at rating load current
Battery Low Shutdown	– 10.2±0.6 VDC
On Battery Run-Time	– at least 5 hours for 1 A load current, increasing proportionally to load reduction
Ingress Protection Rating	– IP20
Power-Up Operation Readiness	– 6 seconds maximum
Operating Temperature Range	– from –10°C to +40°C
Overall Dimensions	– 255x310x95 mm
RIP With Battery Weight	– 6.5 kg maximum
Typical Lifetime	– 8 years, the battery being to be replaced once every 5 year

RIP-12 provides protection against short circuit failure along with automatically recovering of output voltage after short failure disappearing while powered from mains and backup battery.

RIP-12 is equipped with open collector transistor output functioning as contact closure device. It is opened when AC line fails and RIP-12 is operating in battery mode, or in case of a short load circuit failure, so it can be used for remote signaling of RIP electric troubles. The maximum output permissible voltage and commutation current are 30 V and 100 mA respectively.

DELIVERY SET

Uninterrupted Power Supply RIP-12 model 02	- 1
Instruction Manual	- 1
Fuse 0.5A	- 1 pc
Screw-nail	- 3 pcs
Dowel	- 3 pcs
Plastic Bushing	- 2 pcs
Front Cover Lock Key	- 2 pcs
Package	- 1 pc

SAFETY PRECAUTIONS

Current-carrying RIP-12 circuits at 220 V are dangerous and can cause injury.

Do periodically inspect proper RIP-12 grounding and fuse proper operability.

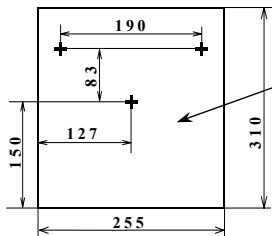
Never open RIP-12 unless AC line shut off.

Do shut off AC line power before mounting, installing or maintaining RIP-12.

Only skilled personnel trained in electric codes and work safety rules should service the device.

ATTENTION! Connecting RIP-12 to the mains utility power supply. KEEP UP the correct coupling of LINE and NEUTRAL TERMINALS in agreement with the picture located inside the enclosure close to power terminal block.

MOUNTING AND WIRING



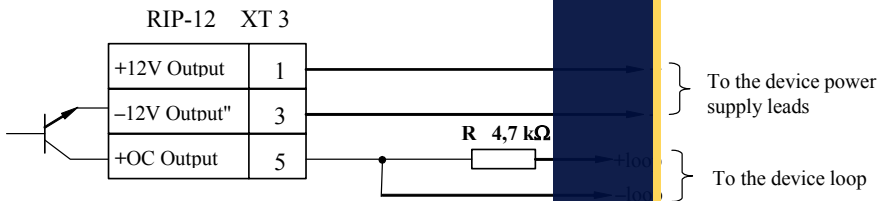
RIP-12 is to be mounted on the wall or other construction on premises protected against atmospheric fallout, mechanical damage and unauthorized access. RIP-12 mounting dimensions are shown in figure at left.

Attach the RIP-12 at a selected location. Then, in accordance with wiring diagram, connect on internal side of RIP-12 front cover do the following:

- 1) **Ground RIP-12** coupling the contact "GND" located on the input terminal block with an earthing network;
- 2) **Having removed F1 (0.5 A) fuse** connect mains power supply wires to the input block terminals;
- 3) Connect load circuits to the output terminal block keeping the proper polarity (XT3/1,2 to "+" and XT3/3,4 to "-").

Note: Load current rating is 2 A. The maximum current consumption from RIP-12 can reach up to 3 A within 10 minutes or up to 5 A within 2 minutes provided RIP-12 is powered both from AC line and backup battery. Such a short time increase of current consumption is necessary for sound alarms, executive devices and automated fire extinguishing systems powering on. The interval between heavy consumption periods must be at least one hour.

4) In order to transmit RIP-12 trouble messages about mains power failed or load circuit shorted connect RIP-12 open collector transistor output (XT3) to an alarm loop of powered control and indication equipment, e.g. S2000-4, Signal-20, Signal-20P SMD and so on. The example of such a wiring is demonstrated below:



R is the Loop End-Of-Line Terminator provided along with a device; it is to be installed within RIP-12 enclosure

STARTING UP

Before the first turning on ensure the RIP-12 mounting has accomplished correctly.

Then, insert the fuse F1.

Next, connect the RIP-12 backup battery to the battery leads keeping in mind proper polarity with red wire to be coupled with positive battery terminal.

Finally, turn on a mains power supply 220 V@50 Hz.

OPERATING

a) When AC line is powering on the device LEDs POWER, CHARGE and 12 V will be lit while RIP-12 sounder will remain in silence.

Note: The battery being completely charged and its voltage being over 13 V, CHARGE LED will not be lit.

6) After RIP-12 powering up the battery is tested. If the battery is not connected or its voltage is below 10 volt then sound and CHARGE indicator goes off in interrupted mode within 8-10 seconds. After that the sounder silences, but CHARGE indicator flashed unless the battery is connected. Battery testing procedure is carried out periodically (at least once every 8 hours). If the battery is found to be missed, then CHARGE indicator flashes.

b) In the events of short load circuit failure and overload (in AC line operating mode) POWER and sound indicators after 3 seconds begin to flash once every 1-2 seconds until the trouble disappearing. 12 V and CHARGE indicators are off. After load trouble having been repaired RIP-12 automatically continues normal operating.

r) When mains power supply fails the battery is switched to the load circuit, 12 V indicator being turned on and sounder going off periodically.

d) If the battery voltage has dropped to 11 V the sounder switches on and off five to ten times more rapidly. It is necessary to take measures to restore mains power line.

When the battery voltage has dropped below 10 V it is shut off from a load in order to avoid deep discharge. In such a case POWER and 12 V indicators will be off, CHARGE indicator will be flashing, and audible alarm will sound. In 2 hours RIP-12 will be transferred to low battery powering mode, CHARGE and sound indicator flashes once every 8-10 seconds until line power having restored.

LEDs and sound indicator behavior along with human actions required are shown in Table below.

RIP Current Status	POWER LED	CHARGE LED	12V LED	Sounder	Human Actions
Mains power is starting up, the battery is not connected	ON	Flashes once every 1-2 s	ON	Sounds for 8-10 seconds in interrupted mode	Connect the battery
Normal AC line voltage, the battery is not charged	ON	ON	ON	OFF	-
Normal AC line voltage, the battery is charged	ON	OFF	ON	OFF	-
Normal AC line voltage, output short failure or overload at least 3 s	Flashes once every 1-2 s	OFF	OFF	Flashes twice every 1-2 s	Repair the circuit load
AC line failed, output short failure or overload	OFF	OFF	OFF	Short time interrupted with 4-5 s period tone	Repair the circuit load
AC line failed, battery voltage is above 11 V	OFF	OFF	ON	Short time interrupted with 4-5 s period tone	Inspect fuse F1 operability and recover the mains line
AC line failed, battery voltage is below 11 V	OFF	OFF	ON	Short time interrupted with 0.5-1 s period tone	Repair AC line
AC line failed, battery voltage is below 10.2 V	OFF	Flashes once every 1-2 s	OFF	ON	After AC line recovering test the battery charge-discharge cycle *

Note:

* After detaching the battery from its load circuit and utility power recovering it is necessary to check the battery charge-discharge cycle. If CHARGE LED has been still lit after 24 hours since power having restored then the battery operability has to be checked.