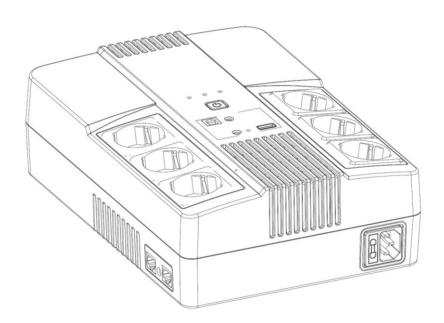
# Multistation

Single-phase Line interactive UPS 1000VA











**Uninterruptible Power Systems** 

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#### Dear Customer,

thank you for purchasing a NAICON product, which is safe, reliable and requires few maintenance action.

Please, carefully read the manual in which you will find all the safety, installation and commissioning instructions, as they will serve for the UPS to last and work as long as possible. This manual describes the operating principle and the associated protection functions. This manual also contains information on the use of the equipment.

Follow the instructions and all warnings in this manual or on the product. Do not connect it before reading all safety and commissioning instructions.

Note: Because of the continuous improvement, our products may differ somewhat from the contents of this manual. Please contact technical support to receive the information if needed.

The information in this document is subject to change without notice.

## 1. SAFETY INSTRUCTIONS

Inside this equipment dangerous voltages are present. Please, meet all safety requirements when installing, operating and maintain it.

This section includes important information about Safety. Please, read it carefully before installing and operating the UPS.

- Check the electrical rating written on the label on the rear of UPS, for being sure that input voltage rating is correctly set and in compliance with local Mains rating.
- When opening the box, if UPS is damaged or dented don't connect it to electrical network. Please call your reseller for product's replacement
- This UPS operates at dangerous voltages. Don't open the device. The UPS doesn't include circuits or components accessible or repairable by the user. ONLY authorized personnel may access to the unit.
- The voltage of internal battery is set at 12Vdc, battery is sealed and contains acid. Do not open or damage the battery. Released electrolyte is harmful to the skin and to the eyes. It can be toxic, too.
- In case of emergency, immediately push ON/OFF switch, disconnect the power cable from the wall plug to correctly shutdown the UPS.
- Connection to a plug without Ground connection may cause electrical shock, and is not in compliance with Law regulation.
- Do not allow liquids or foreign bodies to penetrate the UPS. Do not place any drinks or any other liquid container on top or near the unit.
- This equipment is intended to be used in interior. Avoid installing the UPS in locations where water or excessive moisture are present.
- Don't connect UPS input to its own output.
- Don't connect a multiple plug system or an overvoltage suppression system to the UPS.
- UPS is designed for supplying equipment such as computer, monitor, cash register, telephone system or similar. To supply any equipment different than above mentioned, please refer to your reseller or to call Naicon Service assistance for information
- Don't cover device's air inlet, avoid direct exposure to direct sunlight or install it close to heating sources, in order to avoid any overheating of the unit.
- Before cleaning the UPS, disconnect it from the Mains. To clean external surface, please use only a dry cloth. Don't use any liquid cleanser, spray or chemical solvent, which may damage the electrical circuits of the device.
- Do not throw the batteries in the fire as they may explode.
  - Handling batteries may result in electric shock and short circuit. Observe the following precautions when working with batteries:
  - 1) Don't wear metallic objects
  - 2) Use tools with isolated handles
  - 3) Wear gloves and boots with rubber sole
  - 4) Do not place tools or metal objects on the batteries
  - 5) Disconnect the UPS before battery replacement.
  - Do not throw the batteries in the fire as they may explode.
  - This UPS does not have to work either reversed or lying down.
- Battery maintenance must be carried out by experienced personnel.
- Replace the batteries with the same type.
- Batteries are already connected.
- Make sure that the sum of the leakage currents of the UPS and the loads connected to it does not exceed 3.5 mA before connecting the equipment.
- Be careful when disconnecting the equipment, there may be still residual voltages on the output sockets due to the battery voltage. Battery cables must be disconnected if you need to access the UPS.
- UPS must be connected to an accessible and near plug.
- UPS is equipped with sealed lead-acid batteries. They are harmful if throw in the environment, so they
  must be disposed of in compliance with the relevant Community directives. To dispose of the UPS, you
  must contact the appropriate authorized sites in your area, due to the electronic components and the
  plastic material of which the unit is made up.

#### **WARNING**

IN COMPLIANCE WITH THIS INSTRUCTIONS, ANY NON AUTHORIZED ASSISTANCE TO THE UPS LEAD TO CANCELLATION OF THE WARRANTY

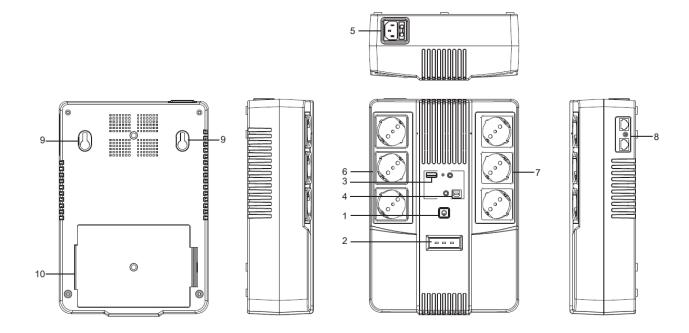
## 2. PRODUCT INTRODUCTION

This UPS is specially designed for PCs or similar equipment. Thanks to its light weight and compact design, it fits perfectly into small working environments. MULTISTATION series is equipped with the AVR function to stabilize the input voltage. It is also integrated with the DC start function (Cold start).

: Main characteristics:

- Microprocessor control for a higher reliability.
- AVR FUNCTION (Automatic Voltage Regulation).
- · Green Power function for energy saving.
- Cold Start.
- · Autorestart function upon returning of Mains.
- Light and compact.
- Overload protection.

#### 2.1 Multifunction view



- 1) ON/OFF switch
- 2) LED indicator
  - A. Green LED on: normal operation electrical network is present
  - B. Yellow LED flashing: operating from battery C. Red LED on: failure
- C. Red LED on:
  3) USB recharging outlet
- 4) USB port
- 5) AC input
- 6) Output outlet By-pass mode
- 7) Output outlet UPS operating mode
- 8) RJ45 phone connector
- 9) Wall fixing
- 10) Battery

# 3. INSTALLATION

#### 3.1 Unpacking and verification

Unpack the UPS. When opening the box, if UPS is damaged or dented don't connect it to electrical network. Please call your reseller for product's replacement.

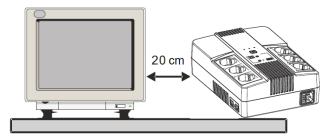
#### 3.2 Installation

1. Install the UPS in an environment that is free of excessive dust, corrosive gas and conductive contaminants.

Don't use the UPS in environments where temperature and/or humidity are too high.



- 2. UPS must be positioned where there is adequate air circulation around the unit.
- 3. To place the UPS at least 20cm far from any monitor or screen in order to avoid interference.



#### 3.3 Battery recharge

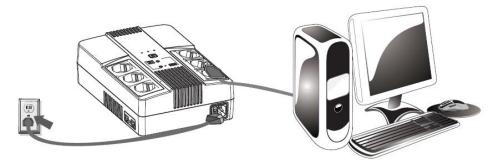
The unit is shipped from the factory with a fully charged internal battery, however, it could be discharged during transportation, so it has to be recharged before use. To do this, connect the unit to an appropriate power outlet and let the battery recharge for at least 6 hours without any load connected.





#### 3.4 Connection

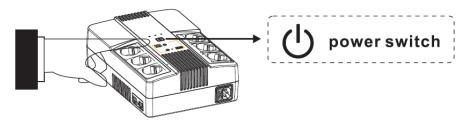
• Connect the power cord to an earthed power outlet (5), then connect your computer and its devices to the UPS protected outlet (7) or to the other outlets (non-protected) (6).



**IMPORTANT**: The total power consumption of the load must not exceed the maximum power rating of the UPS, specified on UPS label.

## 3.5 Switch ON and switch OFF

To turn On the UPS press the switch ON/OFF (1), to turn Off the UPS press again the switch ON/OFF (1).



## 3.6 Cold Start

UPS is able to operate a cold start. To swith On the UPS when the electrical network is not present, simply press the ON/OFF switch (1).

# 4 - TROUBLESHOOTING

STATUS	PROBLEM	RESOLUTION	
	Discharged Battery	Recharge the battery for at least 8hr	
All LEDs are Off	Battery failed	Replace the battery with the same type of product	
	<ul> <li>On/Off button is not switched On</li> </ul>	<ul> <li>Push ON/OFF button on front panel</li> </ul>	
Continuous beep when Mains is present	Overload on UPS	Verify that load doesn't exceed the rating of the UPS	
	Overload on UPS	Partially remove the load	
Battery autonomy time in back-up	Battery voltage is very low	Recharge the battery for at least 8hr	
node is short	Battery failure due to high ambient temperature or improper operation of the battery	Replace the battery with the same type of product	
Battery mode yellow LED is On	Power cord is not connected	Check that power cord is correctly plugged in.	
ut Mains is present	Input fuse is blown	Check the fuse and replace it, if broken	
Battery is not recharged	Input fuse is blown	Check the fuse and replace it, if broken	

NOTE: If there are other conditions not listed, then contact our service center.

# **5 – TECHNICAL CHARACTERISTICS**

	MODEL	MULTISTATION 1000
NOMINAL POWER		1000VA / 600W
	Input	Single-phase with GND connection
INDUT	Voltage	220Vac / 230Vac / 240Vac
INPUT	Voltage range	161 – 290 Vac
	Connections	1 x IEC
	Output	Single-phase with GND connection
	Voltage Tolerance (Battery Mode)	±10%
	Frequency	50Hz
OUTPUT	Frequency Tolerance (Battery Mode)	±1Hz
	Waveform	Modified sinusoidal
	Connections	3x Schuko (UPS) 3x Schuko (By-pass)
	Battery Voltage	12VDC
BATTERY	Quantity of battery	1
DATIENT	Туре	12V/9AH battery sealed lead-acid, maintenance-free
	Recharge time	6-8 hours at 90% after deep discharge
MOLIAL	AC Mode	Green LED On
VISUAL INDICATORS	Battery Mode	Yellow LED flashing
	Failure	Red LED On
	Backup Mode	A Beep every 10s
ACOUSTIC	Low Battery	A Beep every 1s
ALARMS	Overload	A Beep every 0.5s
	Failure	Continuous beep
USB CHARGER	Typical	5.0V / 1.0A Max
SWITCHING TIME	Typical	2-6 ms
PROTECTIONS	Complete	Against discharge, overcharging, overload + input fuse
AMDIENT	Operating Temperature	0°C – 40°C
AMBIENT	Noise	< 40dB
	Dimensions WxDxH	202 x 290 x 91 mm
MECHANICAL	Weight	4,2 Kg
	Tempo di ricarica	6-8 ore al 90% dopo una scarica completa

5.1 Accessories included in the package

MODEL	MULTISTATION 1000		
Instructions Manual	•		
Input Cable (IEC)	1		
Output Cable (IEC)	NO		
RJ45 cable	•		
Software (CD-ROM)	NO		
RS232 cable	NO		
USB cable	NO		

• included

#### WARRANTY

#### Dear Customer.

Thank you for purchasing a NAICON product. We hope that you be satisfied. If the product fails in warranty period, please contact your dealer or call +39 02 950031 or go to www.naicon.com/elsist. Before contacting your dealer or authorized service network, we recommend that you read the operating and maintenance manual carefully.

With this warranty, NAICON warrants the product to be defective in materials or workmanship for 2 years, as of the original delivery date. If there are material or manufacturing defects during the warranty period, ELSIST affiliates, Authorized Service Centers or authorized resellers located in the EEC will repair or (at ELSIST discretion) replace the defective product or components under the terms and conditions below, without any charge for labor or spare parts costs. ELSIST reserves the right (in its sole discretion) to replace the components of defective products or low cost products with assembled parts or new or refurbished products. Conditions.

- 1. This warranty will only be valid if the defective product is returned together with the sales invoice. ELSIST reserves the right to refuse warranty service in the absence of such documents or if the information contained therein is incomplete or illegible.
- 2. This warranty does not cover the costs and / or any damages and / or defects resulting from any modifications or adjustments made to the product, without prior written permission from ELSIST, in order to adapt the product to local technical or safety standards in countries other than those for which the product was originally designed and manufactured.
- 3. This warranty will be void if the model or serial number indicated on the product has been modified, deleted, removed or otherwise illegible.
- 4. Are excluded by the warranty:
- Periodic maintenance and repair or replacement of parts subject to normal wear and tear.
- Any modification or modification to the product, without prior written permission from ELSIST to enhance performance than those
  described in the User and Maintenance Manual
- All costs of technical staff support and any transport from the customer's adress to Assistance Center and vice versa as well as all the risks involved.
- Damages due to:
  - a. Improper use, including but not limited to: (a) the use of the product for any purpose other than the intended use or failure to observe the ELSIST instructions for correct use and maintenance of the product, (b) installation or use of the product not complying with the Technical or Safety standards in the country in which it is used.
  - b. Repairs by unauthorized personnel or by the Customer himself.
  - c. Accidental events, lightning, floods, fires, incorrect ventilation or other causes not attributable to ELSIST.
  - d. Defects of the equipment or equipment to which the product was connected.
- 5. This warranty does not affect the buyer's rights established by applicable national laws nor the Customer's rights to the reseller arising out of the sales contract.

Unless authorized by the manufacturer, reproduction of any part of this manual is prohibited. Our equipment, built with the utmost care and with selected components, is controlled by ELSIST Quality Services. However, if you notice any anomalies, please inform us by calling 02-950031 specifying serial number and model of the devide, which are printed on the identification plate at the rear side of the UPS. ELSIST Assistance Service is also available to collect requests, comments, suggestions, if any.

#### In case of failure:

Contact our Customer Service Center at +39 02 95 0031, and verify the UPS malfunction.

If the products returned to NAICON were OPERATING or if they were delivered without our permission or for out-of-warranty products, they will be returned to the customer by charging a cost that will depend on the country where will be shipped.

**END OF DOCUMENT**