



# OPERATING INSTRUCTION MANUAL

## BFN-NGM-II

### PRODUCT INTRODUCTION

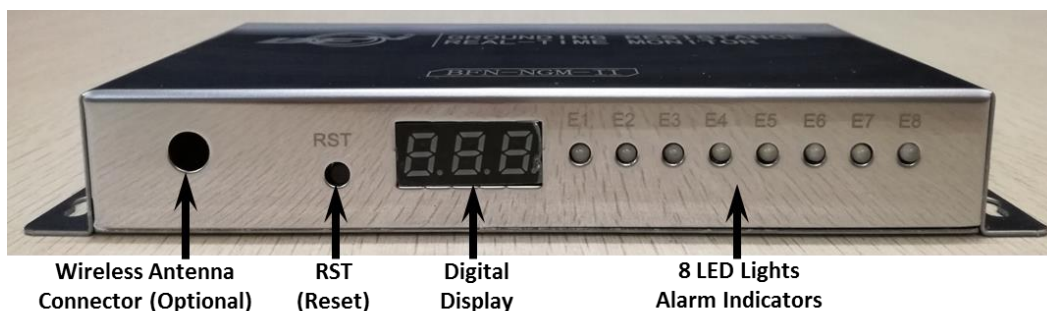
BFN-NGM-II uses a high-performance 32-bit ARM processor and high-quality sampling, interface, communications chip design, application of software system delivers real-time monitoring operation of the device and save the record of their conditions to facilitate centralized management and analysis of data. BFN-NGM-II also has sound and light alarm, smart monitoring, simple to use unique characteristics, timely and accurate to determine the situation of multiple equipment grounding, fault points and the cause of the failure.

### SPECIFICATION

<b>Working Voltage</b>	DC 12V / 1A	<b>Working Current</b>	< 200 mA
<b>Default Alarm</b>	> 4 $\Omega$	<b>Resistance Range</b>	0 $\Omega$ ~ 99 $\Omega$
<b>Accuracy</b>	0.1 $\Omega$ (< 10 $\Omega$ ) 1 $\Omega$ (10 $\Omega$ < X < 99 $\Omega$ )	<b>Nominal Error</b>	+/- 10%
<b>Color</b>	Stainless Steel	<b>Shell Material</b>	Stainless Steel
<b>Weight</b>	300g	<b>Dimension (mm)</b>	L16.7 X W80 X H23.6
<b>Working Temp</b>	0°C ~ 50°C	<b>Working RH</b>	20% ~ 85%

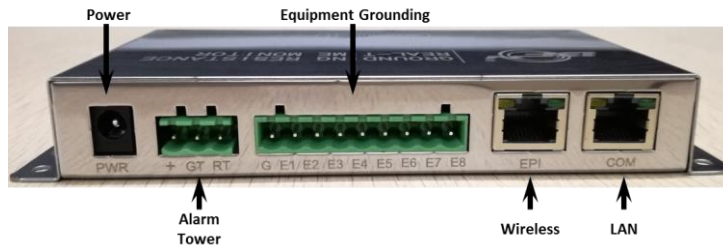
### STRUCTURE

1. Front panel (As per shown below)



- 1.1 "RST", provides device ID number for online monitoring.
- 1.2 "Digital Display", it is a 3-bit digital tube, the first digit displays the device address (1~8), and the last two digits indicate the device's grounding resistance value.
- 1.3 "E1 E2...E8", Eight LED lights (Red and Green lights) to display the eight connected ground performance.
- 1.4 Wireless antenna connector is an optional connection.

## 2. Rear Panel (As per shown below)

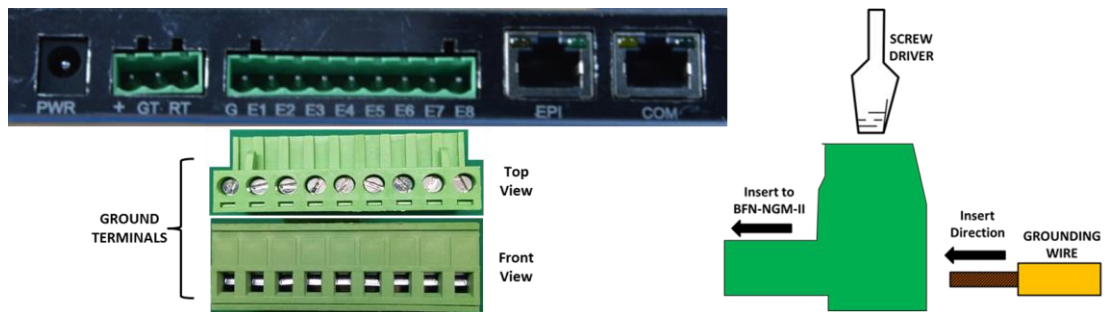


- 2.1. "PWR", Is the 12V power supply adapter interface.
- 2.2. "+ GT RT", Output line connection for alarm tower light interface.
- 2.3. "G", Is the static grounding port connection.
- 2.4. "E1 E2...E8", Eight equipment grounding monitoring connection.
- 2.5. "EPI", wireless interface
- 2.6. "COM", Is the communication interface via RS485/CAN

### **MONITORING DEVICE INSTALLATION**

#### 1. Static Grounding Cable Installation

Use a screw driver to connect and lock the grounding wire in BFN-NGM-II at 'G' terminal point and the other end of the wire line to the Earth grounding point.

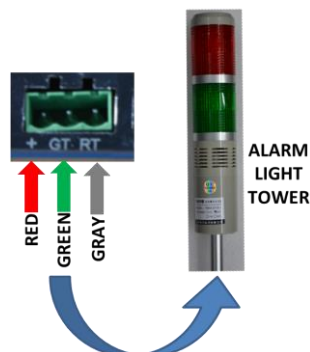


#### 2. Installation of the equipment grounding

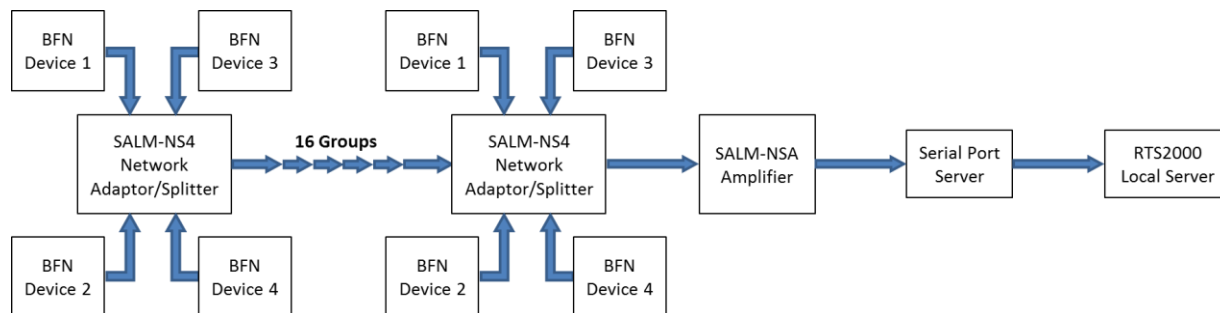
With Screwdriver connect the bare copper wire in the "E1 E2...E8" of the BFN-NGM-II grounding terminal ports and the other end to the ground terminal in the production equipment.

#### 3. Output warning light tower cables connection

RED cable connects to RT terminal port; GREEN cable connects to GT terminal port; and GRAY cable to + terminal port.



#### 4. Online monitoring system (RTS2000) – Optional Software



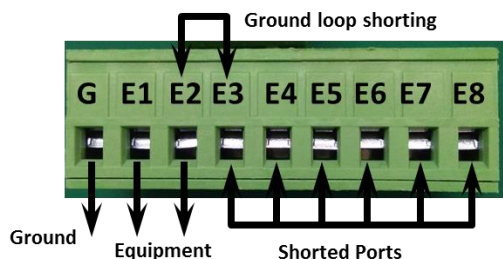
### OPERATING GUIDE

#### 1. Power On

BFN-NGM-II After the installation is complete, plug the power adapter into the power supply to the machine jack (PWR), switch on the voltage to the grounding of real-time monitoring.

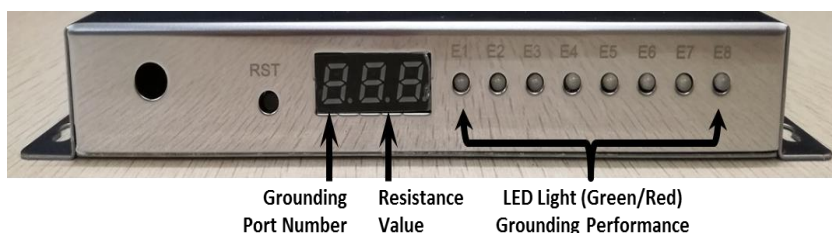
If the machine has been switched on the BFN-NGM-II buzzer beeps sound and the red light is flashing, please check the device for proper grounding connection.

BFN-NGM-II monitors 1 up to 8 equipment grounding at the same time. If uses less than 8 equipment grounding; use wire to short and connect the channel port that is not being used.



#### 2. Alarm Features

BFN-NGM-II monitoring equipment grounding, the device monitors the equipment that connects to earth grounding, the LED display shows the value of resistance while the LED light shows performance of grounding being monitored.



GREEN LED light and no alarm sound shows grounding is within normal resistance range as per requirement. Flashing RED LED light corresponds to the bad grounding connection and out of resistance range as per requirement. Greater than 10 ohms, the LED display shows "ER" and produced alarm beep sounds while RED LED light flashes.

## **PACKING LIST**

- BFN-NGM-II Main Monitor: 1 set
- Grounding Wire (Yellow): 1 set (1.2 meters)
- DV 12V Power Supply Adaptor: 1 set
- Operating (this manual): 1 copy
- Warranty Card: 1 piece

## **COMPONENTS**



**Fig 1:**  
**Monitoring**



**Fig 2:**  
**Power Adaptor**



**Fig 3:**  
**Grounding Wire**

## **OPTIONAL ACCESSORIES**

- Alarm Lamp Tower - supports alarm tower system



## **OPTIONAL SOFTWARE (RTS2000)**

Software designed to support multiple ESD control monitoring devices for BFN Products. This software will provide on-line alarm monitoring system through LAN or network connection. The system continuously monitors (24/7) with data recording function for more than 2000 ESD monitoring devices (exclusively for Horb devices only).



## **ATTENTION**

- When device set-up, please do make sure the device grounding connection is well connected to non-current grounding line.
- BFN-NGM-II has been factory adjusted and can work steadily. No adjustment is needed.
- It is recommended to conduct a periodic verification for the BFN-NGM-II tester.

## **MAINTENANCE**

BFN-NGM-II needs no maintenance and can be used continuously. If it does not work normally due to wrong operations and other reasons, please do notify the supplier immediately.

Note: Prohibit to personally taking it apart or making maintenance.

Operating manual is only for BFN-NGM-II users. It includes the tester's components, operation and some concerning information, some upgrading property with continuing stability, slightly difference will be allowed with operation and manual.



### Suppliers Information

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