

2020

Wireless Bass Meter

User Manual

Wireless Noise Meter - the Sound Pressure Meter

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General Information



The Wireless Bass Meter noise meter TE is intended for measuring the noise level and sound pressure at the low frequency range. The measured signal can be provided by both the industrial equipment and the acoustic systems. A distinctive feature of this device is the LAB-BUS port for connecting external sensors of the NEXT-LAB series. Provided there are external sensors, it allows taking measurements of not only sound pressure, but also the voltage-current characteristics of electric circuits (when using the NEXT-LAB Power Sensor), amplitude-frequency characteristics or noise level of the acoustic system over the entire audible range (when using NEXT-LAB RTA Microphone). Also, if additional NEXT-LAB SPL Sensor is connected, it is possible to measure the sound pressure from two sources simultaneously.

Ergonomics

The Wireless Bass Meter TE device is performed as a monoblock, combining the high-frequency solid-state sensor, ADC module and WiFi module. The device has an on/off switch, LED, USB interface for connecting the device to a PC and LAB-BUS port for connecting the external sensors. There is indication of charging completion and indication of low battery level. At the back cover there are the vacuum suction cups for affixing the device to any smooth surface such as glass. The enclosure of the device is made of shockproof plastic material.

Package Contents

- Wireless Bass Meter (Third Edition) Noise Meter
- Spl-Lab Measuring Center software for Windows
- Audio-CD (or flash drive) with audio tracks for tuning (sine, sweep-tones, noise)
- USB cable for charging

Exploitation of the device

Important safety information:

- ! The manufacturer does not bear responsibility for damage, caused directly or indirectly, as a result of improper use of device.
- ! Before using the device, examine its enclosure for cracks and splits, because any depressurization of the device will result in damage.
- ! To avoid the risk of electric shock, all connector cables should not have insulation defects.
- ! Avoid measuring load beyond the maximum allowable limits.
- ! Do not use or store the device in areas with high humidity or heat, as well as, close to devices, generating strong magnetic field.
- ! During preventive maintenance of the device, do not use synthetic detergents and do not apply solvents. Using wet wipes is preferable.
- ! Before starting the device and the system as a whole, ensure that all the connection cables are connected correctly.

Identifying the functional parts of the device:



No.	Element	Assignment
1	Power indicator	three-colored LED for indicating status of the device
2	USB port	for charging and connecting to a PC
3	Feed switch	the slide switch for switching the device on/off.
4	LAB-BUS port	for connecting the Spl-Lab Next-Lab external sensors

Charging the battery of the device

This device has an internal battery. The running time of the device depends on the intensity of use of the device. For charging, please, connect the device via the USB port to a 5v charger or PC. Consider that for the complete charge, the device should be switched off. Use the three-colored LED for estimating the extent of battery charge and status of the device (according to the table below):

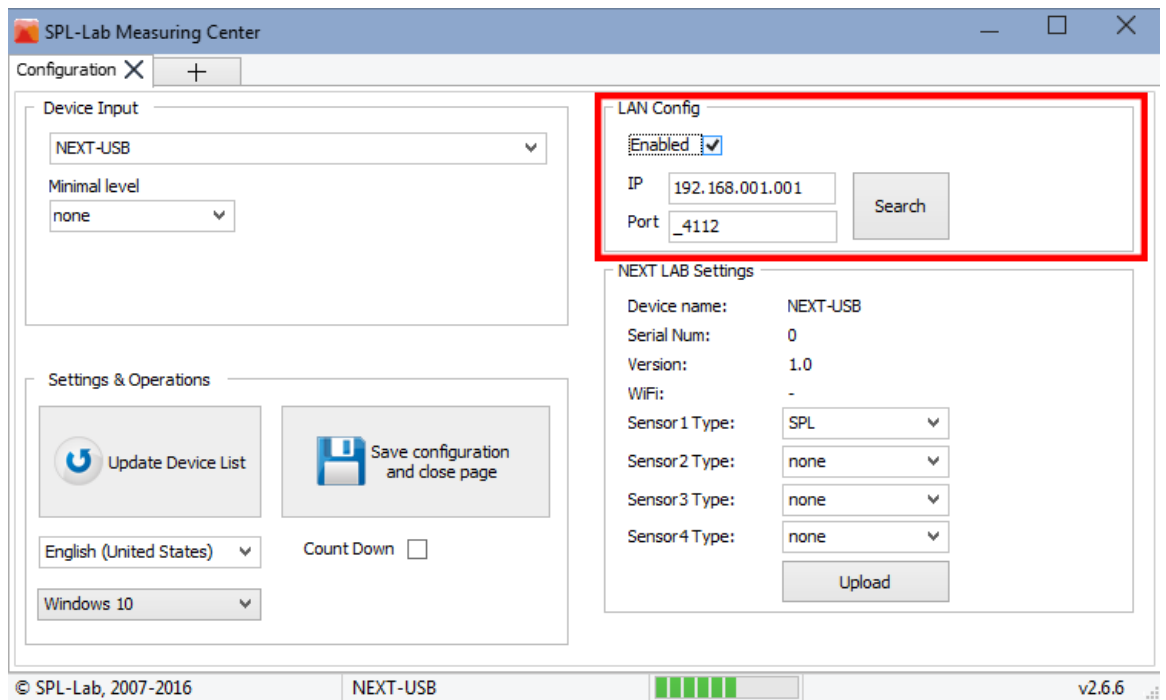
	Green	Orange	Red
Glows continuously	The device is on; battery charge above 80%. Charging complete or not connected	The device is on; battery charge above 80%. Charging is in process.	The device is off; Battery is charging.
Blinks slowly	The device is on; battery charge above 50%. Charging complete or not connected	The device is on; battery charge above 50%. Charging is in process.	
Blinks quickly	The device is on; battery charge above 20%. Charging complete or not connected	The device is on; battery charge above 20%. Charging is in process.	

Connecting to PC via the USB port

- Install drivers from the CD or flash drive, which is included, or download them from *Support* section at Spl-Lab web site www.spl-lab.ru or www.spllabusa.com
- Start the device and wait until it is booted.
- Connect the device to a PC using USB port.
- Start Spl-Lab Measuring Center for work with the device.

Connecting to PC via the Wireless network

- Connect the PC to the Wireless network “Wireless Bass Meter” using OS settings. **PASSWORD 12345678**
- For **initial** configuration of wireless network parameters, connect the device to PC using USB port.
- Start Spl-Lab Measuring Center for connecting with the device.
- On “CONFIG” tab in “LAN Config” field, check “Enabled”, in “IP” field, set value “192.168.001.001”, and in “Port” field – value “4112”

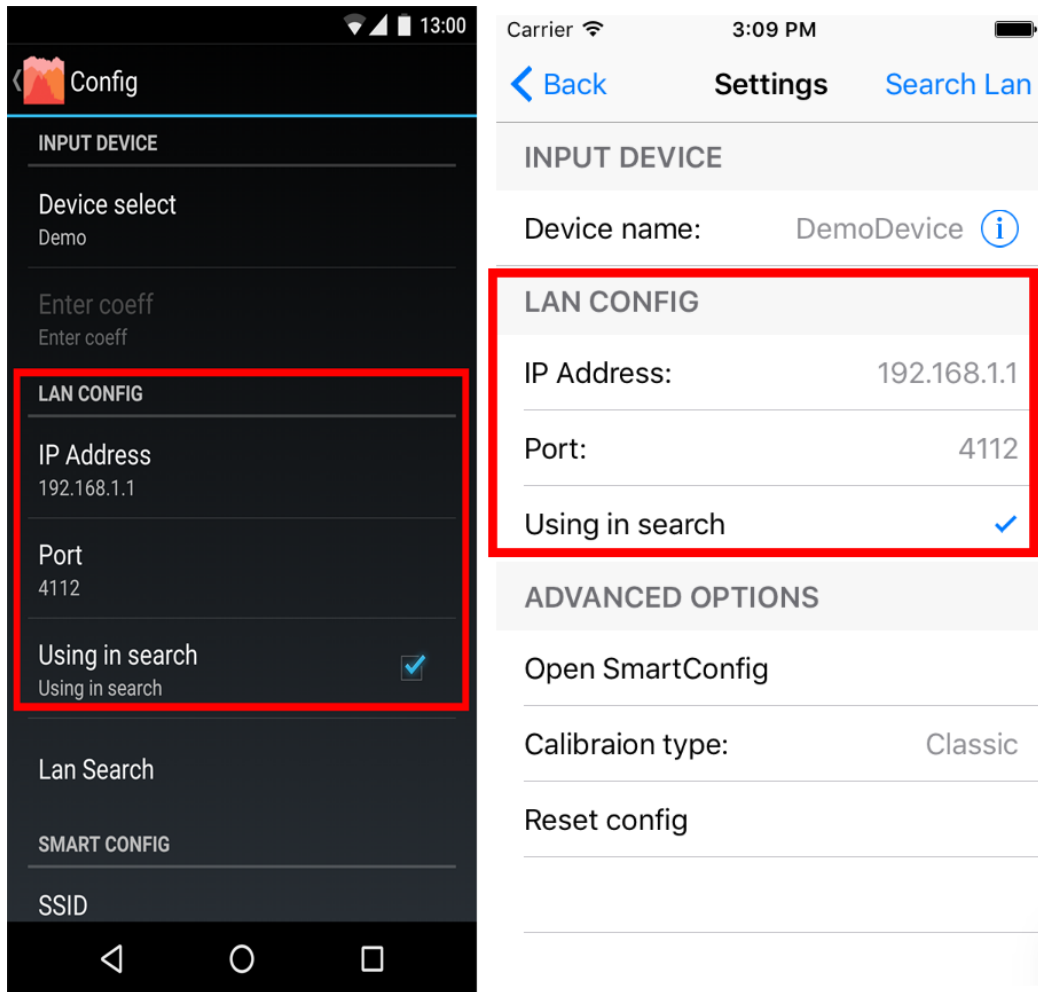


- Save configurations and close the Spl-Lab Measuring Center.
- Disconnect the device from USB port.
- Start the Spl-Lab Measuring Center - connection with the device should be established automatically.

Connecting to Android/iOS devices

- Download Measuring Center software for Android/iOS from the appropriate application store. You can find links in *Support* section of the www.spl-lab.ru web-site.
- Connect your Android/iOS device to the Wireless network “Wireless Bass Meter” using OS settings. **PASSWORD 12345678**
- **When working with the device on Android OS, disable mobile network data transfer in the settings of the operating system.**
- Run Measuring Center for Android/iOS application.

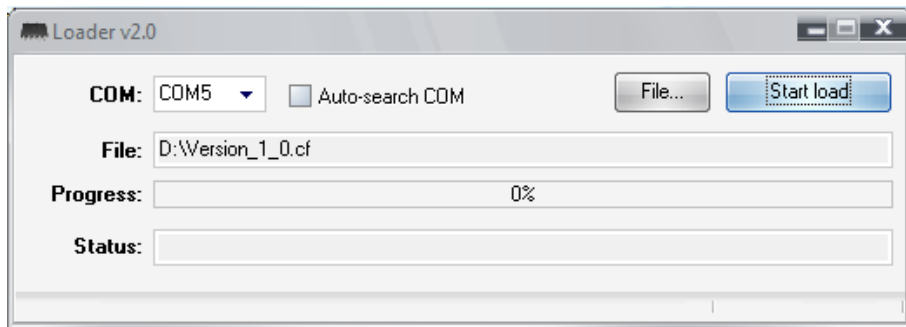
- On “CONFIG” tab in “LAN CONFIG” field, “IP” field set value “192.168.1.1”, in “Port” field, set value “4112” and check “Using in search”.



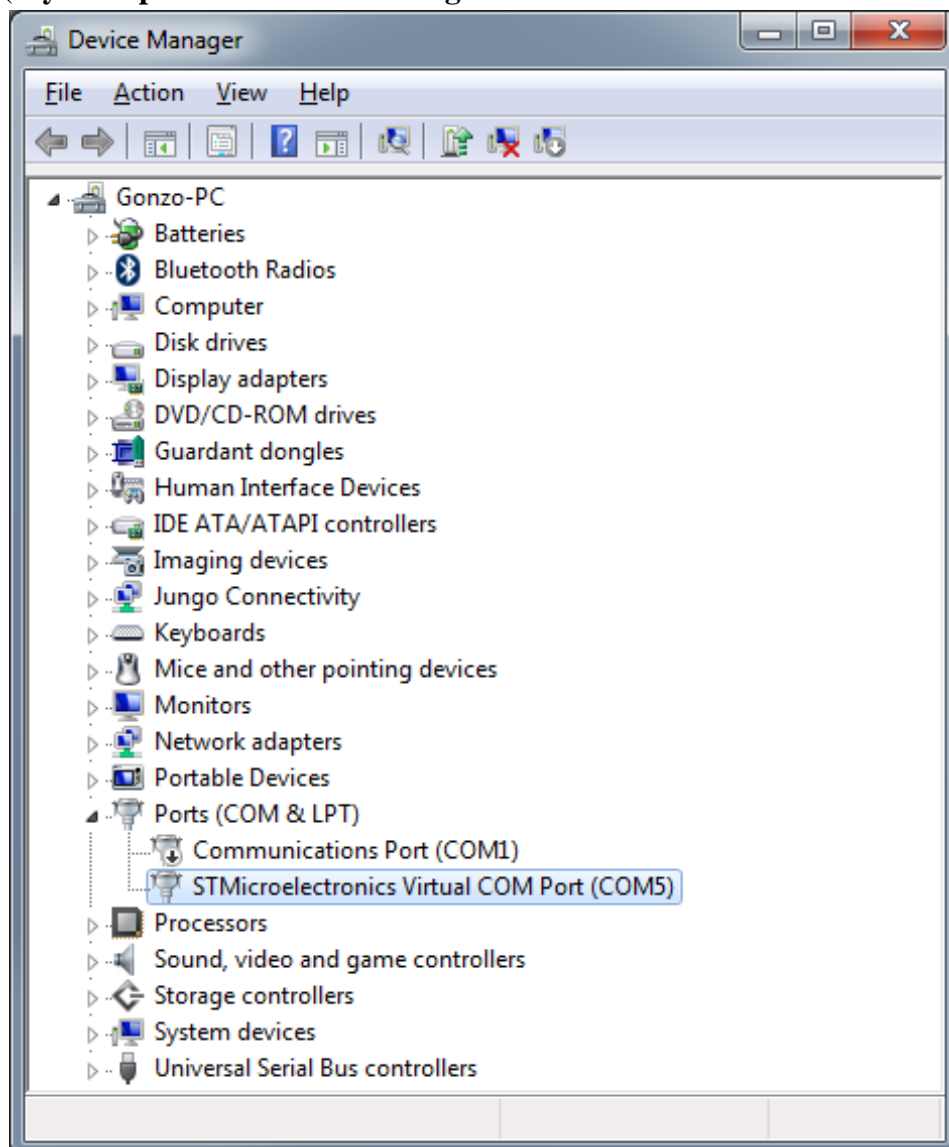
- Exit and re-enter CONFIG mode.
- In the “Device select” dropdown list, select “Next-Lab Device”.
- Exit calibration mode and start the work.

Firmware upgrade using PC

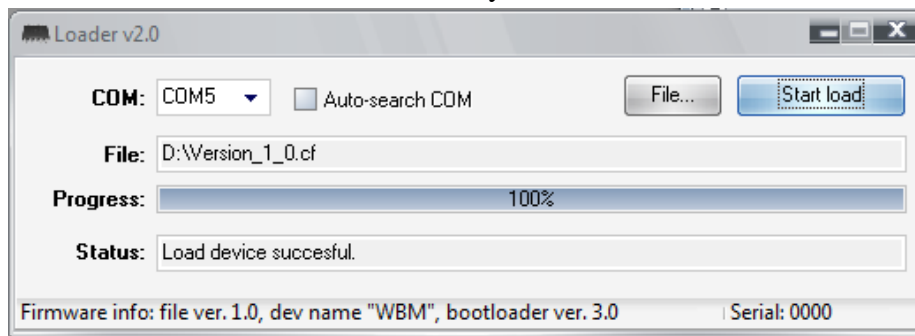
- Do Not attempt flashing firmware unless instructed to do so by SPL-Lab.
- Download the latest firmware version from *Support* section of the www.spl-lab.ru website.
- Connect the device to a PC using provided USB cable.
- Unpack the archive with firmware to hard drive.
- Run **Loader.exe** and select firmware file.



- Set the COM Port number according to Port in Device Manager (My Computer – Device Manager – LPT and COM Ports– Virtual COM Port)



- Switch the device on and within **3 seconds** press “**Start load**” in the program.
- Wait until the firmware is successfully downloaded onto the device.



Description of the CD tracks

The CD included (or flash drive) in the Spl-Lab equipment distribution kit alongside with software contains specialized audio tracks with test signals for adjusting the system. Consider that these tracks are recorded not in the file form, but as tracks in Audio-CD format (flash drive version provides this as a burnable image). For playing back tracks from the CD, use specialized software or CD player. It is possible that some CD player models will not read the audio content of the CD. In such case or if it is more convenient for you to use the audio files, download the archive with test signals from *Support* section at Spl-Lab web site. Table with track description below:

No. of track	Contents
Track 1	Pink noise 20-20000 Hz
Track 2	Pink noise 40-80 Hz
Track 3	Pink noise 60-80 Hz
Track 4	Pink noise 80-100 Hz
Track 5	Pink noise 100-120 Hz
Track 6	Pink noise 120-140 Hz
Track 7	Pink noise 140-160 Hz
Track 8	Pink noise 160-180 Hz
Track 9	Sweep-tone 30-20 Hz Level – 0 dB.
Track 10	Sweep-tone 35-25 Hz Level – 0 dB.
Track 11	Sweep-tone 40-30 Hz Level – 0 dB.
Track 12	Sweep-tone 45-35 Hz Level – 0 dB.
Track 13	Sweep-tone 50-40 Hz Level – 0 dB.
Track 14	Sweep-tone 55-45 Hz Level – 0 dB.
Track 15	Sweep-tone 60-50 Hz Level – 0 dB.
Track 16	Sweep-tone 65-55 Hz Level – 0 dB.
Track 17	Sweep-tone 70-60 Hz Level – 0 dB..
Track 18	Sweep-tone 75-65 Hz Level – 0 dB.

Track 19	Sweep-tone 80-70 Hz Level – 0 dB.
Track 20-80	Sine signal. The number of the track corresponds to the signal frequency. Level – 0 dB.
Track 81	Sweep-tone 20-20000 Hz. Level – 0 dB.
Track 82	Sine signal with frequency of 100 Hz
Track 83	Sine signal with frequency of 200 Hz
Track 84	Sine signal with frequency of 1000 Hz
Track 85	Sine signal with frequency of 2000 Hz