

# RTX6001

## Audio Analyzer



## Quick-start Guide

# 1 Unpacking the RTX6001 Audio Analyzer

## 1.1 Initial Inspection

Please inspect the shipping container for damage. If the shipping container or packaging material is damaged, it should be kept until the contents have been checked mechanically and electrically. If any mechanical or electrical damage is observed please notify RTX. Please refer to the description on how to contact RTX provided in the User Guide. Please also keep the damaged shipping materials (if any) for inspection by the carrier and an RTX representative.

## 1.2 Box Contents

When unpacking the RTX6001 Audio Analyzer please verify that the items listed below are included in the box.

- RTX6001 Audio Analyzer unit
- Main Power cable
- USB cable (for communication between the Analyzer and a PC)
- Certificate of conformity (not for demo units)
- Calibration report (not for demo units)

# 2 Installation of the RTX6001 Audio Analyzer

The RTX6001 Audio Analyzer can be used on the benchtop or installed in a 19-inch rack cabinet (with optional mounting hardware). This section shows you how to:

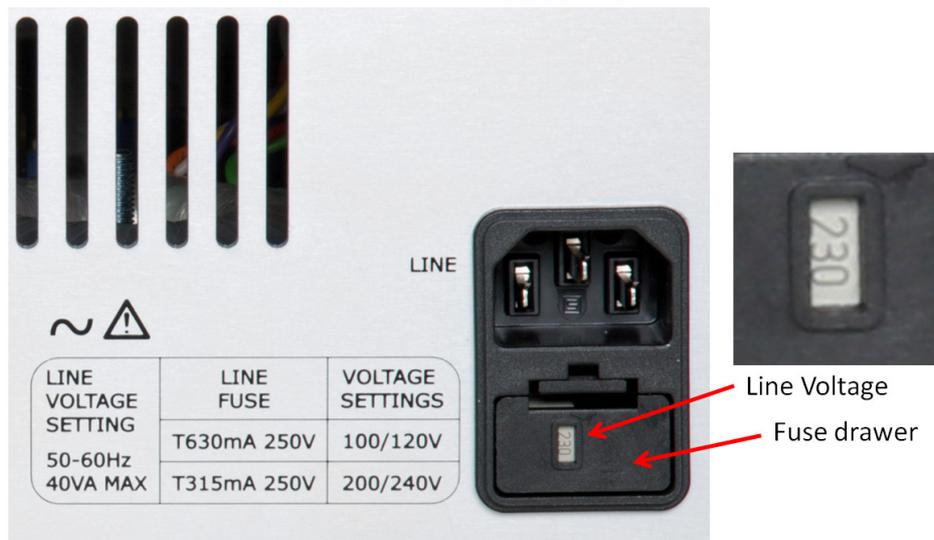
- Check the operating voltage and fuse rating and change if needed – see section 2.1.
- Install RTX6000 series driver on a PC – see section 2.2.
- Connect the Analyzer to a PC USB port; the PC should install driver automatically – see section 2.3.
- Switch the Analyzer on for the first time – see section 2.4.
- Install the RTX6001 Attenuation Control program (optional) – see section 2.5.
- Install an audio analyzer software of your choice – see section 2.6.
- Run the analyzer program. Select the RTX6001 as audio interface – see section 2.6.

## 2.1 Checking the Voltage Setting and the Fuse Rating

### **IMPORTANT!**

Check whether the voltage setting is compliant to the local region before connecting the main power cord (see instructions below). The RTX6001 is delivered prepared for 200V – 240 V operation.

The power line fuses are located within the power entry module on the rear panel, see picture below. For 110V to 120V operation the fuses are T0.63 250V. For 220-240V operation the fuses are T0.325 250V.



### **Fuse location**

If the operating voltage needs to be changed, do the following:

- 1 Remove the power cord from the Analyzer.
- 2 Pull out the fuse drawer e.g. with a flat screwdriver.
- 3 Pull out the grey voltage selector and rotate it 180° to select a different line voltage.
- 4 Insert the correct fuses as shown in the figure below. Use two identical fuses.
- 5 Replace the fuse drawer in the power entry module.



### **Fuse drawer**

## 2.2 Installing the RTX6000 Series PC Driver

When using a Windows PC, a driver is needed to support USB Audio Class 2.0. The driver for the RTX6001 must be installed on a PC for proper operation. The driver supports Windows 7, 8, 8.1 and 10. Both 32 and 64 bit systems are supported.

Download the software installation package from the download center on the RTX website <https://www.rtx.dk/en/design-services/contact/download-center/>  
Run the program RTX\_v4.33.0\_2017-10-11\_setup.exe (or later version).

## 2.3 Connecting the Audio Analyzer to a PC USB Port

To operate the Audio Analyzer you must connect a PC (Windows/MAC/Linux) system controller to the USB port using a standard USB High Speed cable with Type A-B plugs (one is supplied with the Audio Analyzer). The PC USB port should not be routed through a USB hub - neither external nor internal to the PC.



**Standard USB cable with Type A-B plugs**

When the RTX6000 series PC driver is installed, the PC should recognize the Audio Analyzer and enumerate the unit.

## 2.4 Switching the Audio Analyzer on for the First Time

Before switching the Audio Analyzer on please ensure that the:

- 1) Line voltage selector is set to the voltage of the power supply
- 2) Correct fuse is installed
- 3) Power supply voltage is in the specified range

Connect the Main Power Cord to the IEC power connector on the back of the unit.

Turn on the Audio Analyzer by toggling the ON/OFF button on the front.

Some of the LED's on the front should light up.

Depending on the attenuator settings, some clicks from relays may be heard at power on and later during operation. This is normal.

### **Caution:**

To avoid problems due to DC offsets, it is recommended to use the AC input setting in most cases. AC coupling is especially important when operating the unit with inputs set to 0dBV, -10dBV or -20dBV.

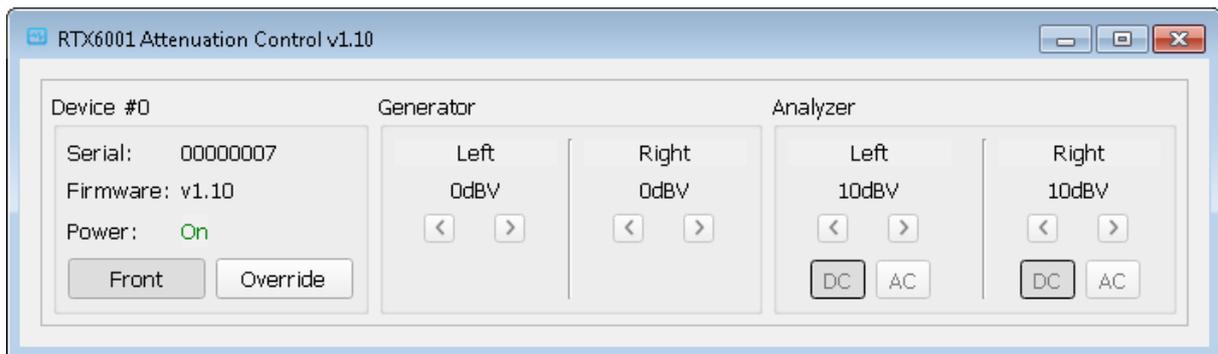
Furthermore, the unit should not be operated with excessive overload for extended periods of time. Doing so may compromise its performance.

## 2.5 Installing the RTX6001 Attenuation Control Program (optional)

A small utility program is provided for the Audio Analyzer. It allows the user to monitor and control the status of the front panel settings on the connected PC.

Locate and run the RTX6001\_v1.10.exe (or newer) installation program from the software installation package.

After installation the following control panel will be available:



To bring up the control panel later, run the program by clicking the program shortcut.

## 2.6 Installing an Audio Analyzer Program

To use the RTX6001 for audio measurements, a program should be installed.

The list below shows some of the audio analyzer programs generally available on the market.

Virtins Multi-Instrument - <http://www.virtins.com/multi-instrument.shtml>

Arta, Steps - <http://www.artalabs.hr/>

HpW Works - <http://www.hpw-works.com/>

MATAA - <http://audioroot.net/mataa-mats-audio-analyzer/>

RightMark - <http://audio.rightmark.org/>

SpectraPlus - <http://www.spectraplus.com/>

VisualAnalyzer - <http://www.sillanumsoft.org/>

Audacity - <http://www.audacityteam.org/>

Virtins Multi-Instrument has an RTX6001 option for dedicated HW support, with full control of output and input settings from the analyzer SW.

ASIO or WASAPI interface is recommended for best performance.

Other SW packages can also be used.

Refer to the User Manual for the selected analyzer program for further information.

The RTX6001 Audio Analyzer can also be used for audio playback and/or recording.