

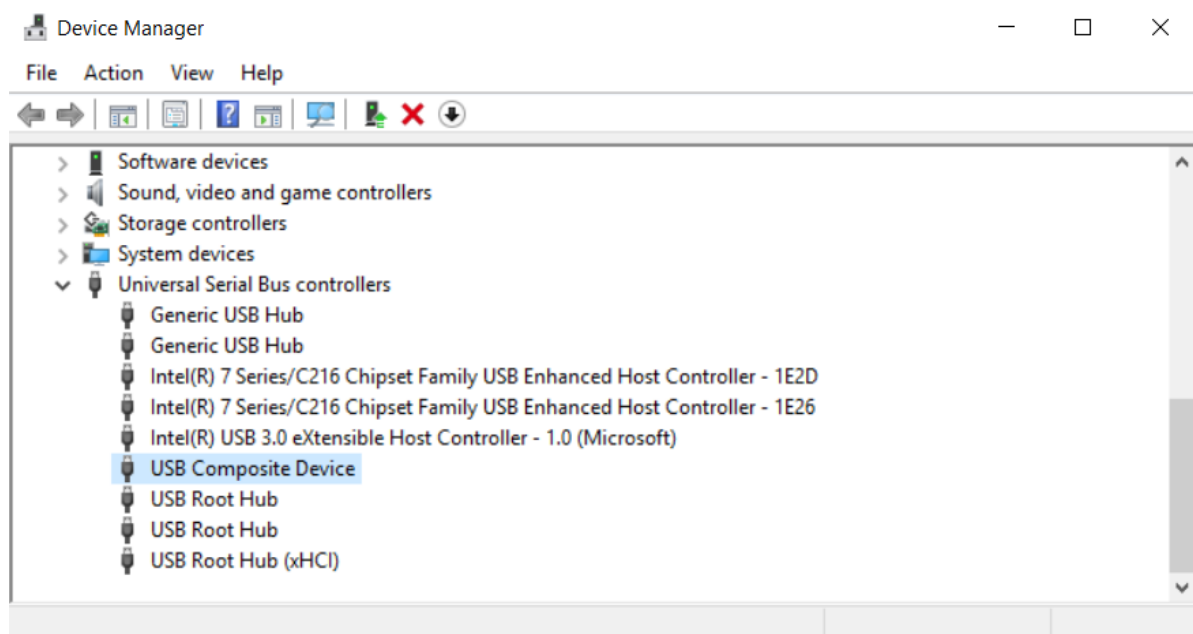


Using the old (legacy) Avisoft-UltraSoundGate 116 and 416 on Windows Vista/7/8/10/11

Due to a major change of the USB audio class device driver in Windows Vista/7/8/10/11, the old UltraSoundGate devices 116-200 and 416-200 (that were designed for using with Windows XP) do not longer function properly with that driver. For this reason, the default Microsoft USB Composite Device driver must be replaced by the new dedicated Avisoft-UltraSoundGate device driver (USGH.SYS). When the Avisoft RECORDER USGH software has been installed ([Downloads - Avisoft Bioacoustics](#)), this driver has already been copied into the folder C:/Program Files (x86)/Avisoft Bioacoustics/RECORDER USGH/Drivers. That folder must be specified when the device manager asks for the driver.

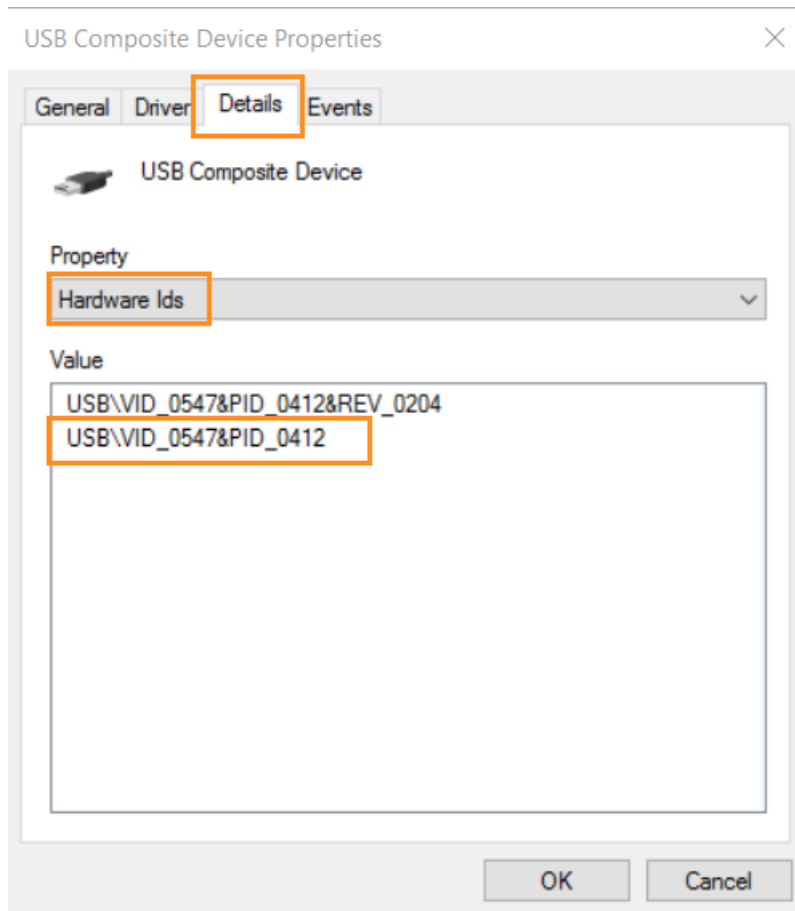
At first, the UltraSoundGate unit must be connected to the computer. Windows will then recognize a USB composite device, an USB audio device and a HID device. This automatically installed USB Composite Device must then be manually replaced by the dedicated UltraSoundGate driver as descibed below.

1. *Launch the Windows Device Manager by right-clicking at the Windows Icon an selecting the popup menu option "Device Manager"*
2. *Locate the "USB Composite Device" in the section "Universal Serial Bus controllers":*



3. Check the Hardware Ids:

In order to make sure that the selected USB Composite Device really represents the UltraSoundGate unit, double-click at the entry and go to the card “Details” and choose the “Property” item “Hardware IDs”:



Valid entries for
UltraSoundGate units are:

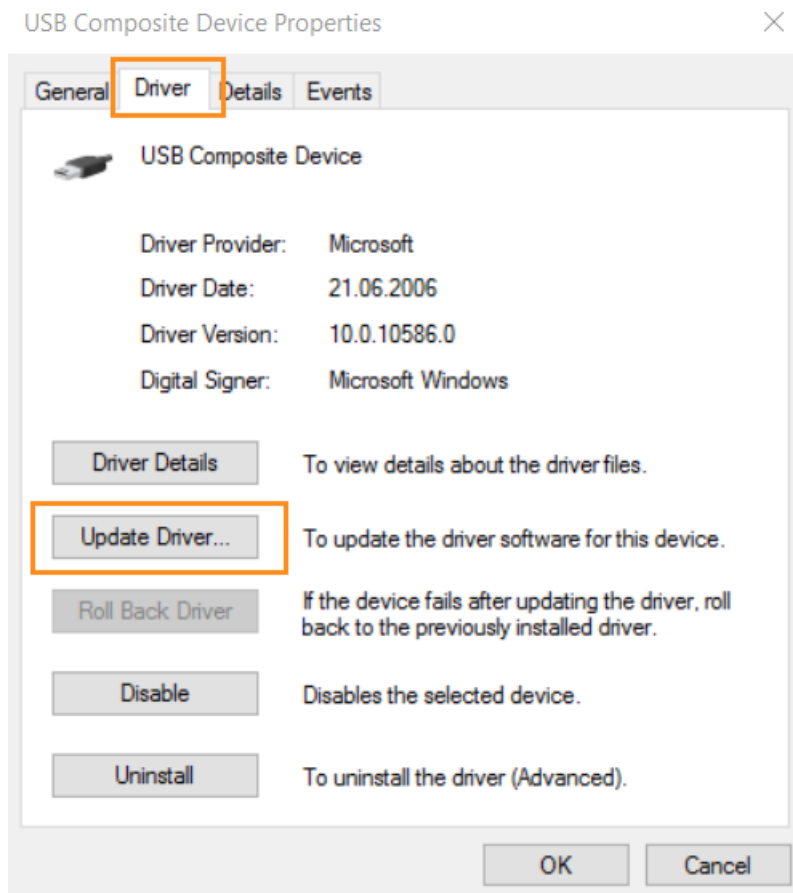
USG 116:
„USB\VID_0547&PID_0412“

USG 416:
„USB\VID_0547&PID_0512“

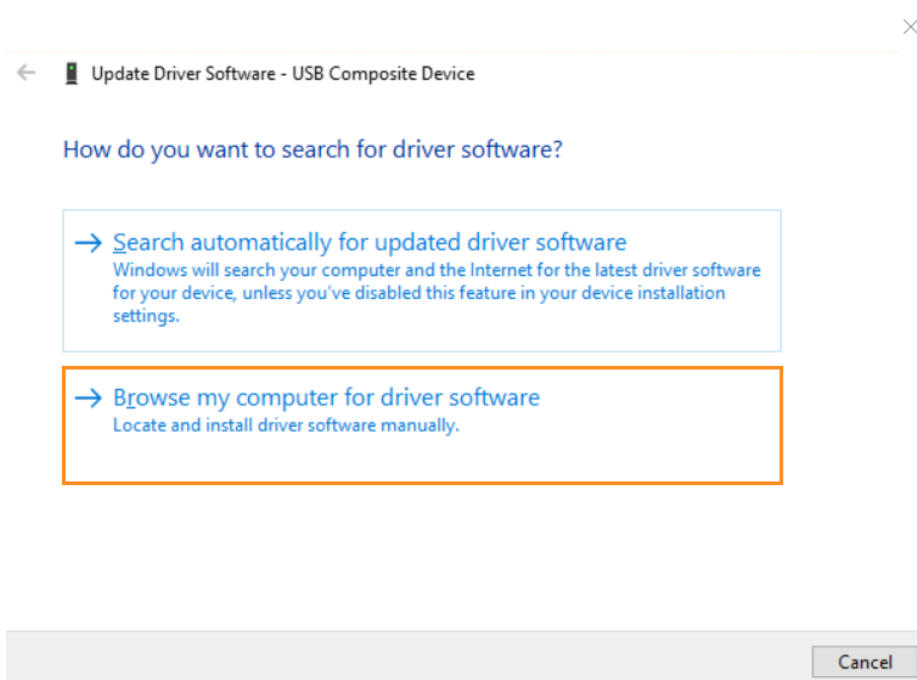
If there is a different hardware ID displayed, then try another composite device from the list.

4. Install the new driver

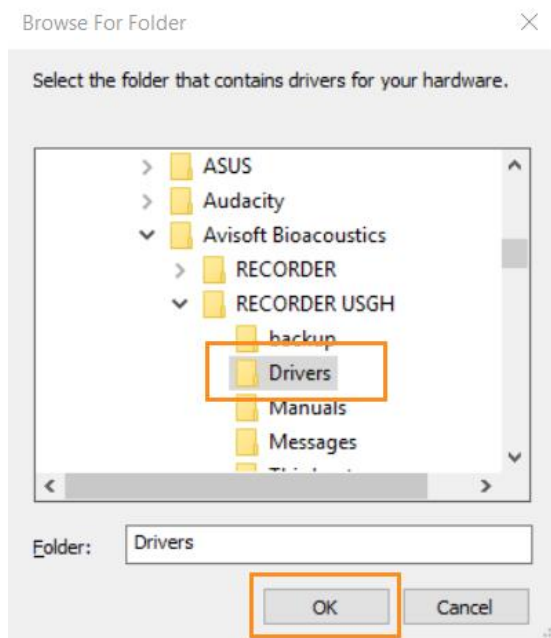
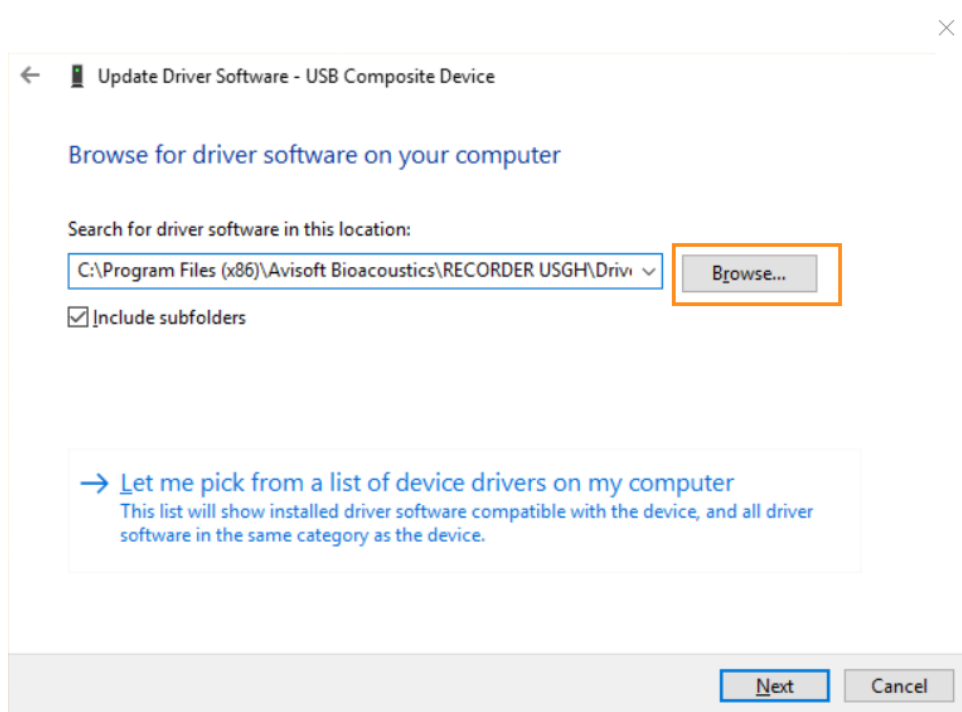
Once you have found the correct device, choose the register card “Driver” and click at the button “Update Driver...”:



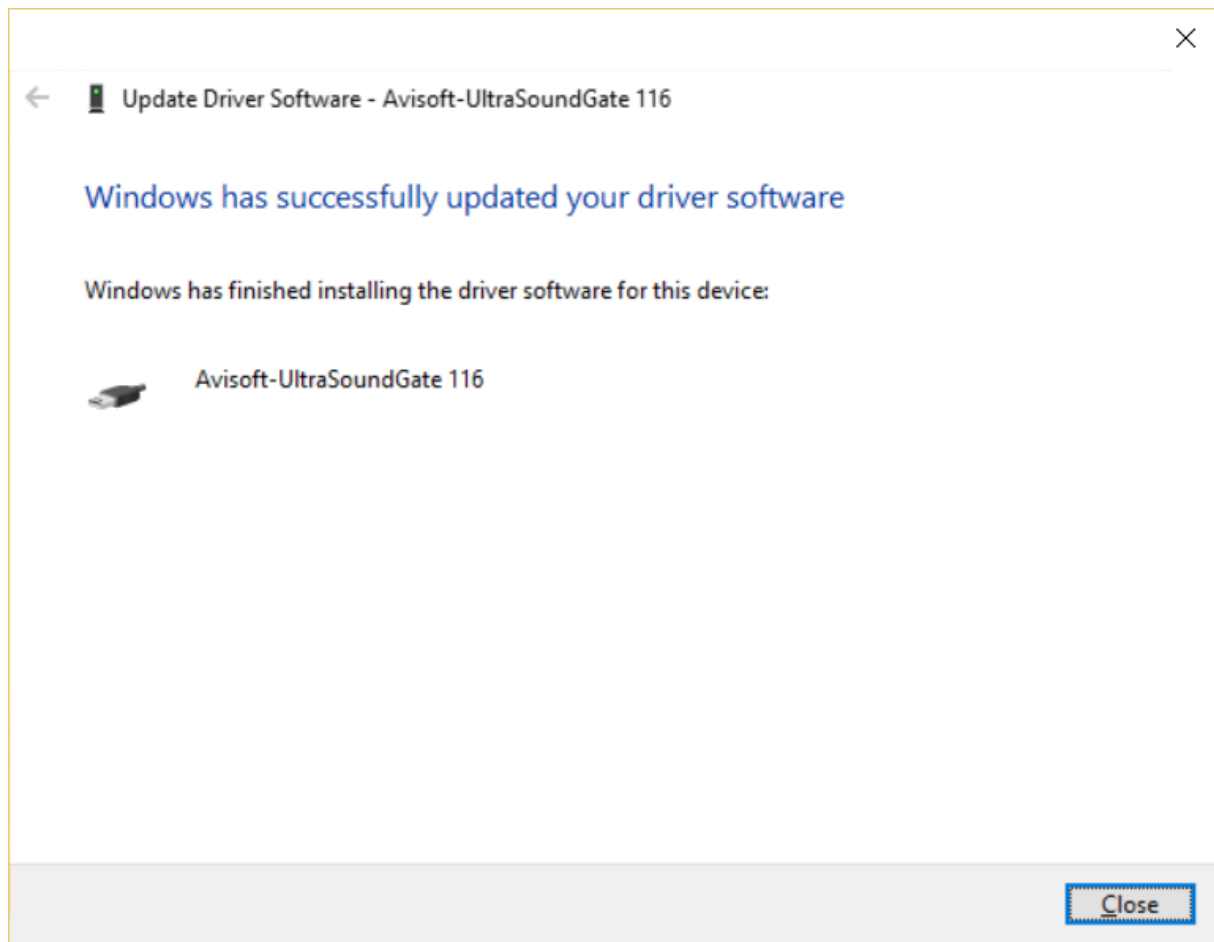
Then select the option “Browse my computer for driver software”:



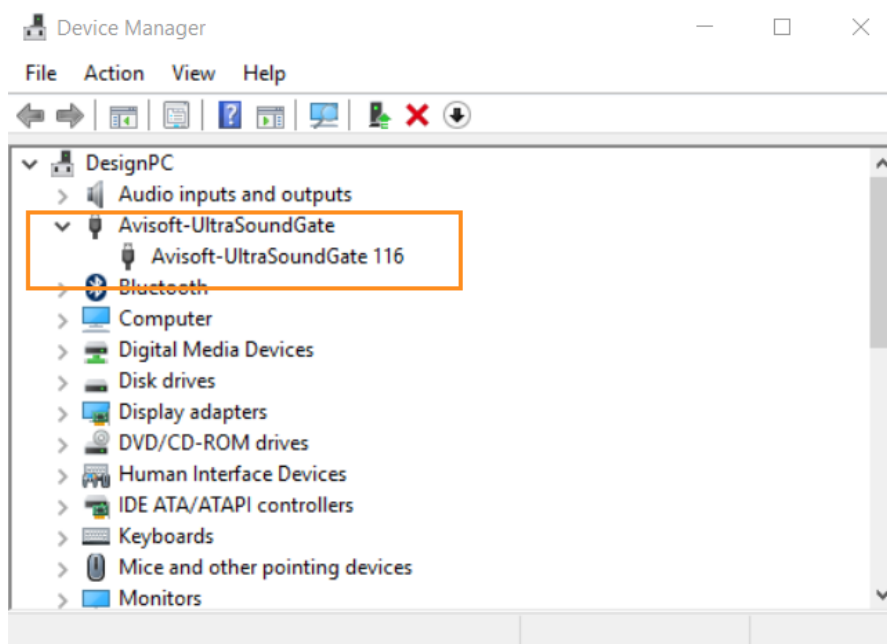
On the next dialog box, click at the „Browse...” button and navigate to the directory where the UltraSoundGate device driver files (usgh.sys, usgh_116.inf and usgh_416.inf) are located. If the Avisoft RECORDER USGH software has already been installed, the correct path name would be “C:/Program Files (x86)/Avisoft Bioacoustics/RECORDER USGH/Drivers”.



Finally click at the Next button, which will install the new driver.

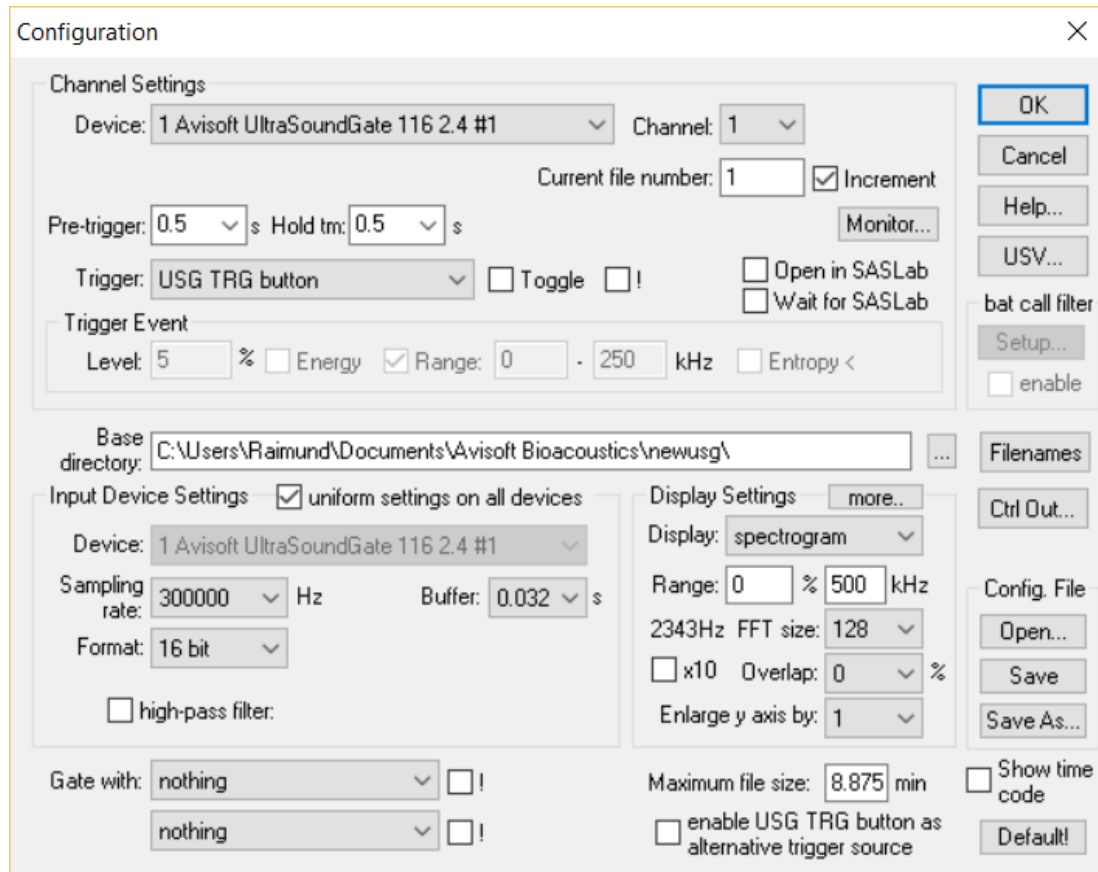


The Device Manager should now list the newly installed “Avisoft-UltraSoundGate” hardware as follows:



After completing the device driver installation procedure, the RECORDER USGH software can be launched from Start->All Programs/Avisoft Bioacoustics/RECORDER USGH (executable file name : rec_usgh.exe).

The configuration dialog box of the RECORDER USGH Software will display the recognized UltraSoundGate model and the hardware revision number:

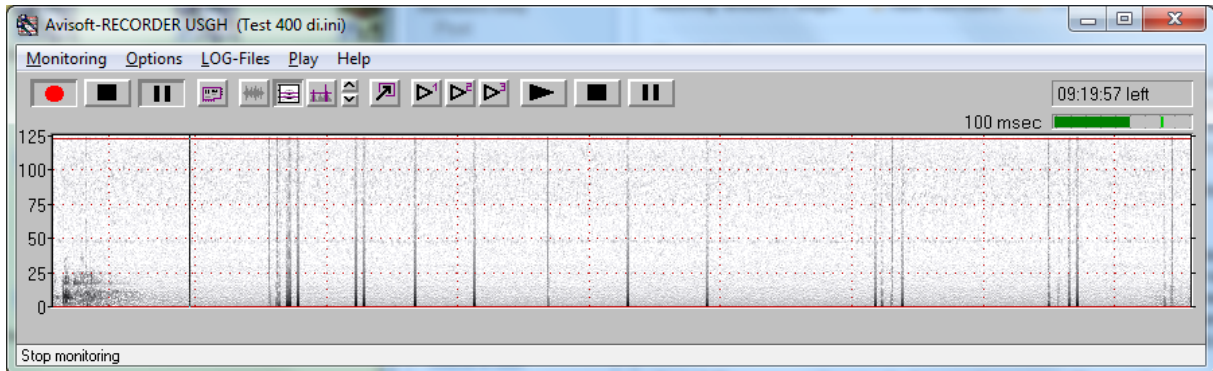


It is still possible to replace the newly installed UltraSoundGate device driver by the original Microsoft USB Composite Device driver. To do this, navigate to the UltraSoundGate 116 (or 416) entry on the Device Manager, right-click at it and select the popup menu item **Uninstall**.

Note that the USGH driver installation and de-installation must be done separately for each USB port (Windows registers the installed driver separately for each port).

Occasional erroneous USB data streaming on UltraSoundGate 116-200 when operated from Avisoft-RECORDER USGH

There is a known issue on the UltraSoundGate 116-200 that occasionally produces random spikes in the recorded data:



As soon as it occurs, it will be present during the entire duration of a monitoring session (from Monitoring>Start to Monitoring>Stop).

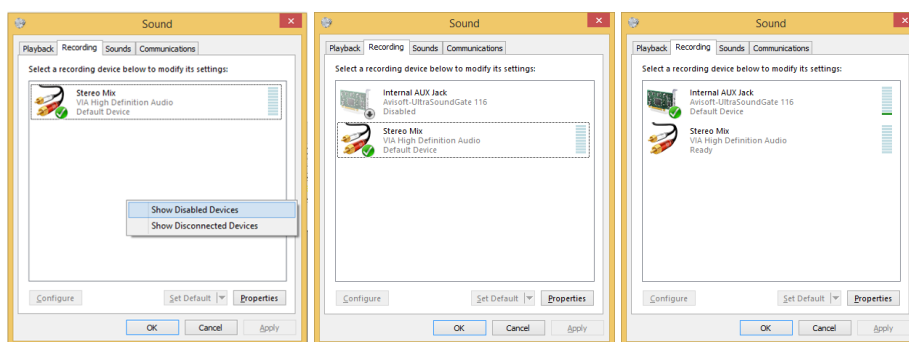
It is usually possible to get rid of it by stopping and starting the monitoring mode repeatedly until it disappears.

Another workaround is to set the bit depth ("Format") to "8 bit" or operating the system from the RECORDER USG software on Windows XP.

Using the UltraSoundGate 116-200 with the Windows Audio Class Driver on Windows 10/11 at the sample rates of 48, 96, 192 and 384 kHz

In case the sample rates of 192 and 384 kHz were sufficient, it is still possible to use the UltraSoundGate 116-200 with the Windows Audio Class Driver that comes with Windows 10 (version 1607 or later) in combination with the Avisoft RECORDER USG or other third-party audio recording software. In order to get this work, the following things must be adjusted from the *Windows Control Panel*:

Navigate to the „*Hardware and Sound*” section and click at “*Manage audio devices*”. Select here the “*Recording*” tab. Then right-click at the window and check the popup menu item “*Show Disabled Devices*”. Then select the “*Internal AUX Jack*” device, right-click at it and check the popup item “*enable*”:



Then click at the “*Properties*” button, navigate to the “*Advanced*” tab and select the option “*1 channel, 16 bit, 192000 Hz (Studio Quality)*” or “*1 channel, 16 bit, 384000 Hz (Studio Quality)*”. Launch the **Avisoft RECORDER USG** software (*rec_usg.exe*) and select the sample rate of 192000 or 384000 Hz:

