QUICK START & RELEASE NOTES

SONICUE 1.6

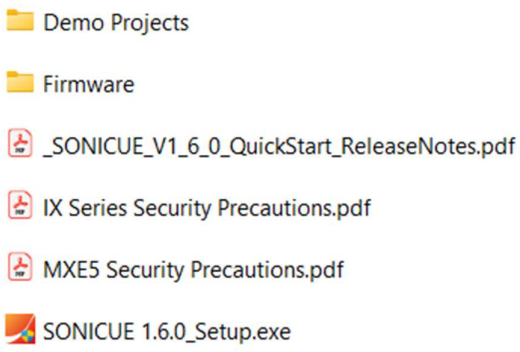
NEW IN SONICUE 1.6.0

- Automixer and Ducker for IX Series amplifiers
- New TaskEngine blocks (MXE5, IX) for TCP/IP, UDP, PjLink and Visonary Solutions
- APKs for SONICUE Control on Android devices
- Change speaker modes without disconnecting (if wiring remains)
- Comprehensive support for drag & drop of amplifiers “Expressions” to control panel and TaskEngine, including multi-selection
- Impedance sweep for IX series via web browser
- Support for Kling & Freitag branded amplifiers
- Support for IPX 1:1 redundancy, including state flags

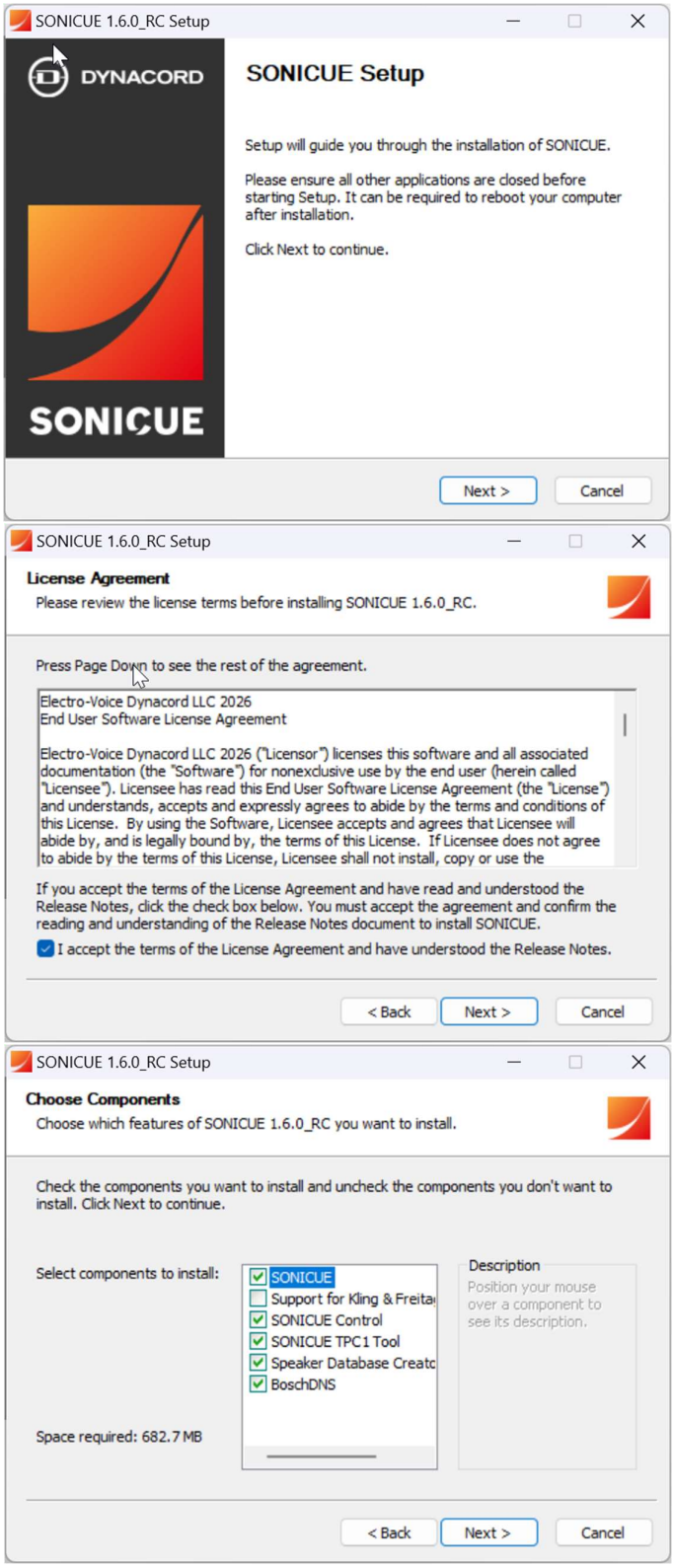
MINIMUM REQUIREMENTS

PC with Windows 10/11, 64-bit, CPU dual core @ 2 GHz (min), screen resolution 1920 x 1080 px, 8 GB memory, Ethernet Interface, USB 2.0 for L- and C-Series.

INSTALLATION



Read the QuickStart Guide and Release Notes (this document). If you plan to use MXE5 Matrix Mix Engine and/or IX amplifiers in a network with internet access, please read the Security Precautions. Run SONICUE 1.6.0 Setup.exe (needs administrator rights) to install SONICUE Sound System Software.

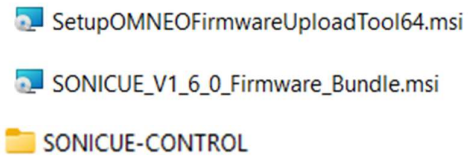


Select the relevant apps. Unless you only want to run SONICUE Control, we recommend installing all preselected apps. Select Support for Kling & Freitag if you are working with Kling & Freitag branded amplifiers.

Once the installation is completed, you will be notified – click the close button.

The installer package will put a SONICUE icon on your desktop as well as an entry for SONICUE, SONICUE Control, Speaker Database Creator and SONICUE TPC-1 tool in your program listings. Note: You can run various releases of SONICUE on the same computer.

FIRMWARE INSTALLATION



Run SONICUE_V1.6.0_Firmware-Bundle to install all firmware files on your PC. This bundle installs all firmware files to the correct folders. They will be found with the Firmware Upload Tool: C:\ProgramData\Bosch\OMNEO\Firmware\SONICUE_V1_6_0\

For details on how to update, please see the APPENDIX FIRMWARE UPDATE. The folder SONICUE Control contains the apk files for Android touch panels.

SONICUE 1.6.0 does not require updates for WPN1, L-and C-Series amplifiers and RCM-28.

SYSTEM LIMITATIONS IN SONICUE

MXE5 Devices per SONICUE instance	10
Connections per MXE/IX amplifiers counting: - MXE5, TGX/IPX/IX amplifiers - TPC-1, WPN1 - iOS devices - Android devices - PCs	50
SONICUE Control Server connections to MXE5/IX amplifiers - WPN1, TPC-1 - iOS devices - Android devices - PCs	25
Devices in System (any type, in a single subnet without DDM or ARNI)	450

IMPORTANT NOTES FOR MXE5-64 MATRIX MIX ENGINE

MXE5 operation in fixed or free (flexible) configuration DSP mode

In “Set Up - Mode” you can change MXE5 from free (flexible) configuration DSP mode to a fixed DSP mode (24x24 zone mixer). Changing the configuration mode is loading another DSP overlay (DSP structure) which will reset all DSP settings - make this selection before starting to design/configure the DSP.

MXE5 operation with sample rate 48 kHz or 96 kHz

MXE5 can be operated with internal sample rate of either 48 kHz or 96 kHz. In fixed configuration mode changing the sampling rate is loading another DSP overlay which will reset all DSP settings - make this selection before starting to configure the DSP. In free DSP configuration mode switching from 48 kHz to 96 kHz is possible if enough DSP resources are available (96kHz operation needs about double the resources as 48 kHz). Exported MXE5 device configurations can only be imported on devices using the same sample rate and configuration as the configuration file was created in.

MXE5 presets in free DSP configuration

Changes to the DSP design and using the Undo/Redo function will clear all existing devices presets. Create presets as the very last step of your design when the DSP structure is final.

MXE5 firmware update clears the DSP configuration

After a firmware update, MXE5 will be in factory default with no DSP configuration loaded. Make sure you save the configuration (we recommend the entire project) before. Going online after a firmware update is only possible “writing.” To avoid erasing the configuration in your project file, reading as a first action after a firmware update is not possible.

MXE5 – corrupt preset data prevention

SONICUE 1.4. and higher provides a warning when opening project files with corrupt MXE5 preset data. Check if projects open in 1.5.x BEFORE you update firmware on MXE as this deletes all data.

MXE configuration changes and control panels

Control panels created for MXE5 in fixed DSP configuration will not work with free DSP configuration. After switching DSP mode on MXE5 devices running control panels (e.g.TPC-1) need to be rebooted, SONICUE Control on PC and iOS and Android devices need to be restarted as well.

IMPORTANT NOTE IX SERIES AMPLIFIERS FIRMWARE UPDATE

Connect IX Series amplifiers to mains power when updating firmware. Do not use PoE as sole power source. Do not disconnect power until the orange LEDs on the front panel have stopped circulating, even if the Firmware Upload Tool shows “finished”.

KNOWN ISSUES IN SONICUE 1.6.0

IX: Dante Receive connections may stay in status “In Progress” after patching or reboot of IX, but Dante audio is received.

IX: To enable or disable the Multicast Filters, please power cycle IX after the filter is applied via SONICUE.

“Device active LED” in the remote status flyout is still showing “active” even when a device gets disconnected.

Unpatching a network cable is not reported as error in RSTP mode on MXE, TGX, IPX.

SONICUE Control on iOS and Android devices:

- deleting the currently active control panel from the list will delete the list entry, but keep the active control panel still in operation
- using the “Reset” function to clear all panels from an iOS device might crash the app or SONICUE when being online (workaround: use reset only with iOS device offline)
- loading of licenses text is very slow and can cause a crash when being online

Dynamic help is not working for all available elements, please use the static (= Home) help.

MXE5: Status flyout is showing GPI active (fault), even if no fault is present when switching from analog input to digital output (workaround: switch to digital in before)

MXE5 standby is not fully switching to power save mode

RCM-28: going online writing will ignore write-protected presets without warning. To avoid any complications ensure you don’t use write protected user presets in your SONICUE project.

RCM-28: the output delay of RCM-28 is not supported in SONICUE.

Parallel operation for TGX and IPX with IRIS-Net V4.1 is supported but has not been fully tested.

Uninstalling SONICUE Sound System Software

CAUTION: Uninstalling SONICUE software will delete all user-created files. If you want to keep any of these files, copy them to another directory on your hard disk drive before starting the uninstallation process.

You will need administrator rights to uninstall SONICUE from your system.

Close all applications currently running on your system and select “uninstall app” in the control panel. Select SONICUE x.x from the list and start the uninstallation process.

APPENDIX - SPEAKER SETTINGS IN SONICUE

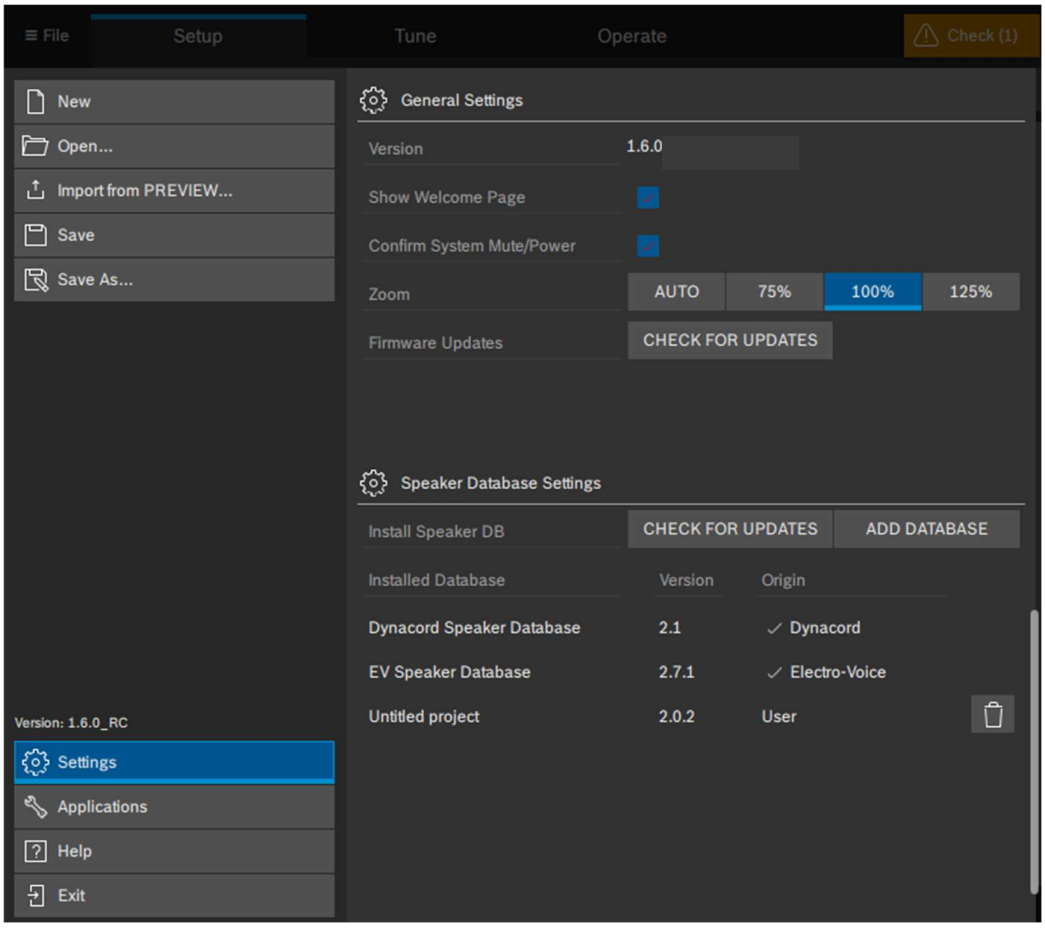
Speaker databases - working from loudspeaker view

SONICUE Sound System Software provides system visibility and direct access working from the loudspeaker view of the sound system. This requires connecting the loudspeakers with the amplifier channels in SONICUE as in reality. SONICUE includes by default databases of Dynacord and Electro-Voice loudspeakers as well as a Generic Speaker data base.

Data base version 2

Since SONICUE 1.2.2 data bases need to be in version 2.x. If you upgrade from SONICUE 1.2.0 or earlier and used other speaker data bases from our website, you need to update those to 2.x.

You can manage your speaker databases in Settings:



Generic speaker data base

Since SONICUE 1.4 a generic speaker device is included.

The generic settings allow you to select the appropriate frequency range and utilize the sophisticated limiter circuits in Dynacord's amplifiers. The speaker types include:

Low impedance speaker settings

Speaker Type	Hi-Pass/Lo-Pass*	Limiter settings for cont. power rating 8Ω
Fullrange	35 Hz	100 W, 150 W, 200 W, 250 W, 300 W, 400W, 500 W, 600 W, 700 W
Fullrange	50 Hz	100 W, 150 W, 200 W, 250 W, 300 W, 400W, 500 W, 600 W, 700 W
Subwoofer	35/80 Hz	200 W, 250 W, 300 W, 400 W, 500 W, 600 W, 700 W, 800 W, 1000 W
Subwoofer	35/100 Hz	200 W, 250 W, 300 W, 400 W, 500 W, 600 W, 700 W, 800 W, 1000 W
Subwoofer	35/120 Hz	200 W, 250 W, 300 W, 400 W, 500 W, 600 W, 700 W, 800 W, 1000 W
Top	80 Hz	200 W, 250 W, 300 W, 400 W, 500 W, 600 W, 700 W
Top	100 Hz	200 W, 250 W, 300 W, 400 W, 500 W, 600 W, 700 W
Top	120 Hz	200 W, 250 W, 300 W, 400 W, 500 W, 600 W, 700 W
Linear	None	None, 100 W, 150 W, 200 W, 250 W, 300 W, 400 W, 500 W

* 24 dB Butterworth for hi-pass and low-pass at operation frequency limits, 24 dB Linkwitz-Riley at x-over frequencies.

High impedance speaker settings

Speaker Type	Hi-Pass/Lo-Pass*	Limiter settings for Direct Drive
Direct Drive	50 Hz/17 kHz	70 V, 100 V
Direct Drive	80 Hz/17 kHz	70 V, 100 V
Direct Drive	100 Hz/17 kHz	70 V, 100 V
Direct Drive	150 Hz/17 kHz	70 V, 100 V
Direct Drive	300 Hz/17 kHz	70 V, 100 V

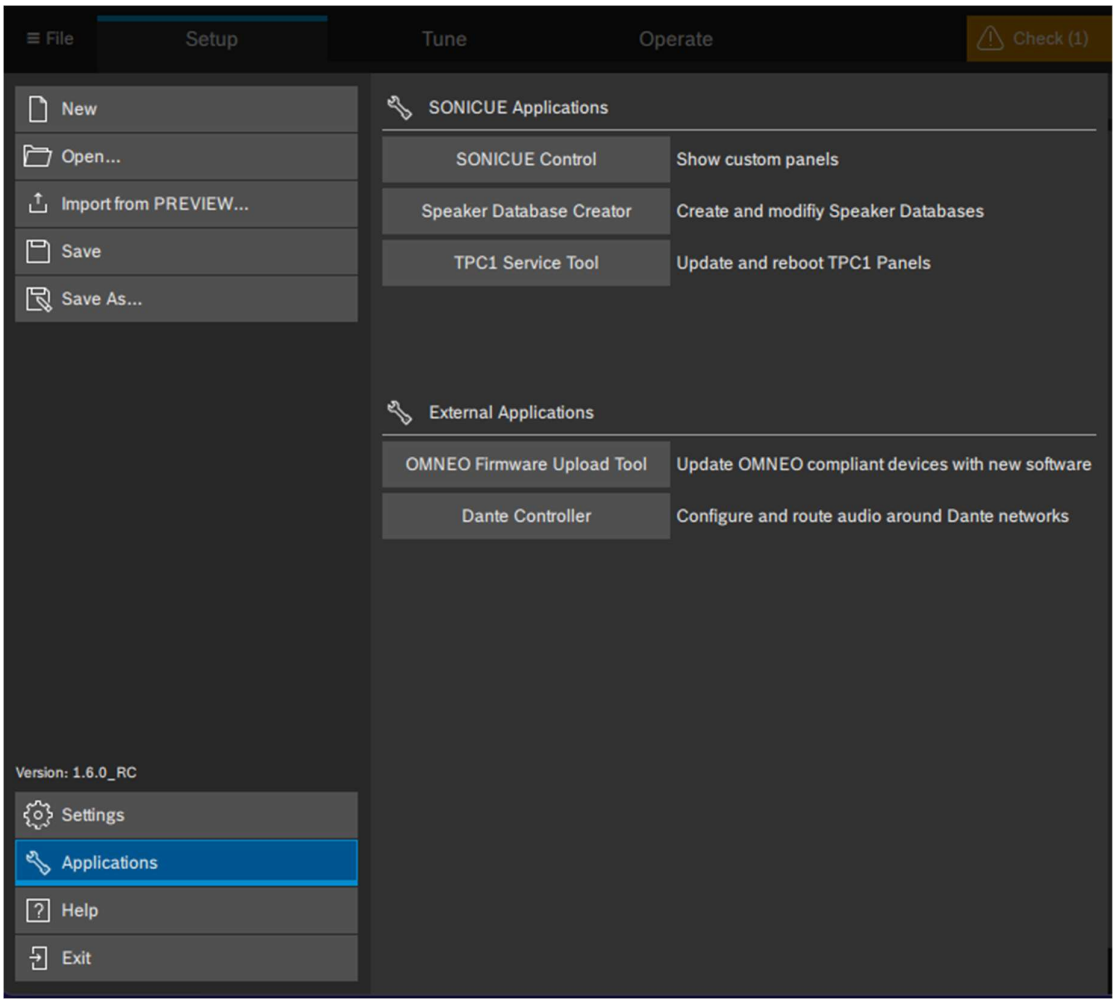
The power rating (for Low-Z) reflects continuous power handling of a loudspeaker at 8 Ohms. As the limiters use output voltage as threshold you can use multiple loudspeakers in parallel, e.g. for two or three 8 Ω speakers rated 200 W (cont.) wired in parallel use the setting for 200 W. For loudspeakers rated at 4 Ω use half the power rating (e.g. 200 W@ 4 Ω ≙ 100 W @ 8 Ω).

The speaker type "Generic" can be assigned to Passive, Biamp, Triamp, Quadamp, Single subwoofer, or Dual subwoofer and allows to load files in SPS format.

See the Speaker Database Creator within SONICUE to create custom speaker devices.

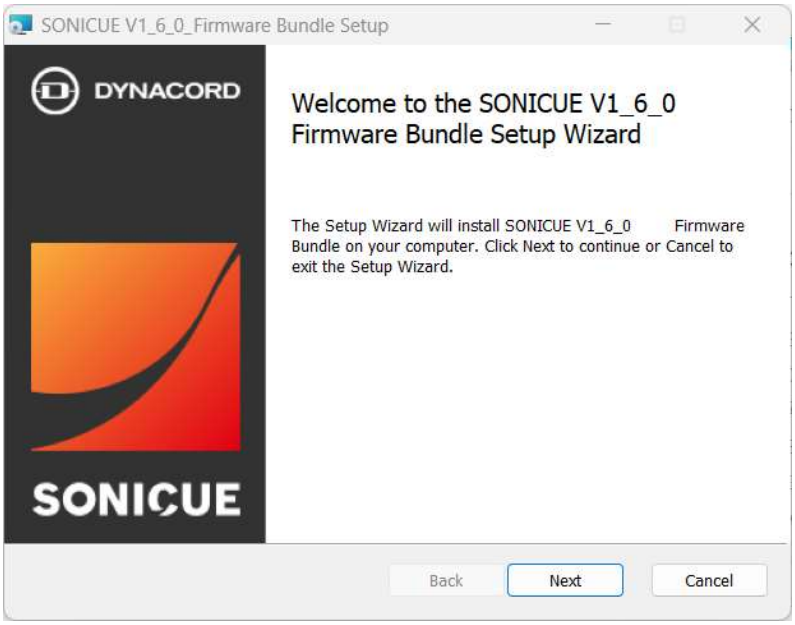
APPENDIX FIRMWARE UPDATES FOR SONICUE DEVICES

You can always find the latest firmware version for devices supported in SONICUE on the dedicated firmware download side, accessible straight from the SONICUE Applications.



Supported Device	Firmware Update
TGX-, IPX-, IX Series amplifiers	OMNEO Firmware Upload Tool
MXE5-64 Matrix Mix Engine	OMNEO Firmware Upload Tool
WPN-1, wall panel controller	OMNEO Firmware Upload Tool
TPC-1, touch panel controller	TPC-1 Tool (in SONICUE)
L- and C Series amplifiers	SONICUE
RCM-28 module	OMNEO Firmware Upload Tool
Android devices (SONICUE Control)	Install .apk directly
iOS devices (SONICUE Control)	Install from App store

Before you update any software, run SONICUE_V1.6.0_Firmware-Bundle.msi to install all firmware files on your PC. This bundle installs all firmware files in the correct folders.



This installer will place all firmware files (and apks) in the directory

C:\ProgramData\Bosch\OMNEO\Firmware\SONICUE_V1_6_0_RC1

The OMNEO Firmware Upload Tool, the TPC-1 tool and SONICUE will find this directory when updating firmware.

INSTALLING ANDROID APKs

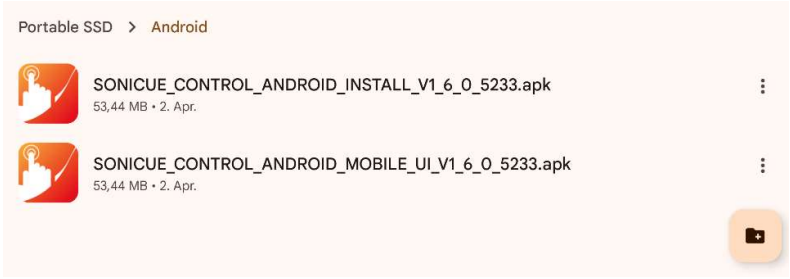
You'll find the apk for Android in the same directory as the TPC-1 , or in the SONICUE Control folder in the download package. Supports Android OS ≥ 12.

SONICUE offers two versions of the apk for Android devices:

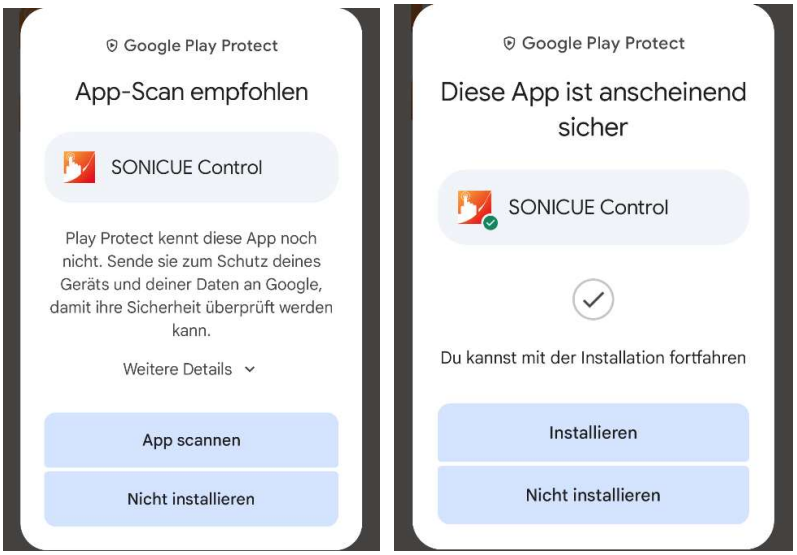
- INSTALL will only provide one control panel without the menu (similar to TPC-1)
- MOBILE has the menu to select between control panels (similar to iOS)

Copy the apk to the Android device (using an app like files)- and click to execute. Allow scan and install. If you get security prompts: allow network access.

Note: the folder program data may be hidden on your PC. Activate "show hidden folders" in Settings.



Click on the version to start installation. When asked, scan the app, the select install:

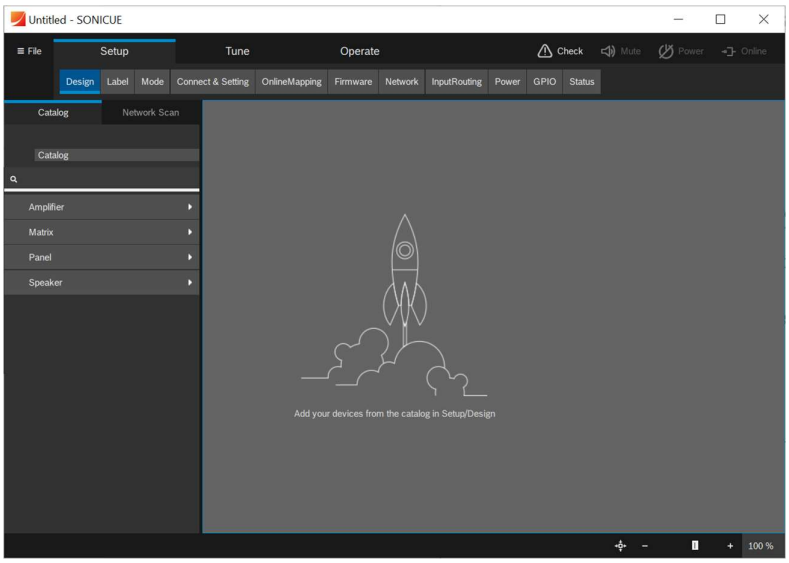


After installation, start the SONICUE control app to make the device visible for SONICUE.

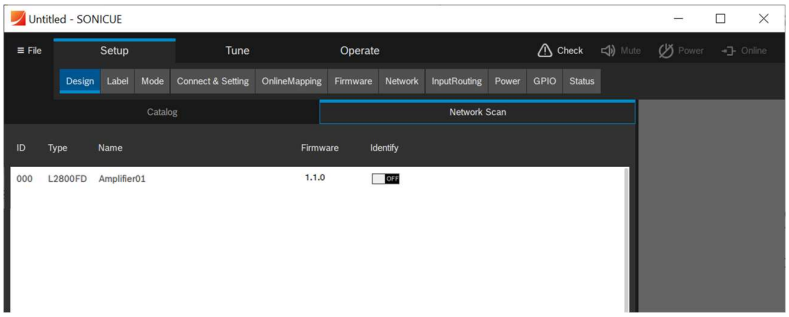
L&C Series

L- and C series amplifiers can be updated directly via SONICUE when connected to the PC.
You need to have a USB (2.0) Type A to Type B cable to connect the amplifier to your computer.

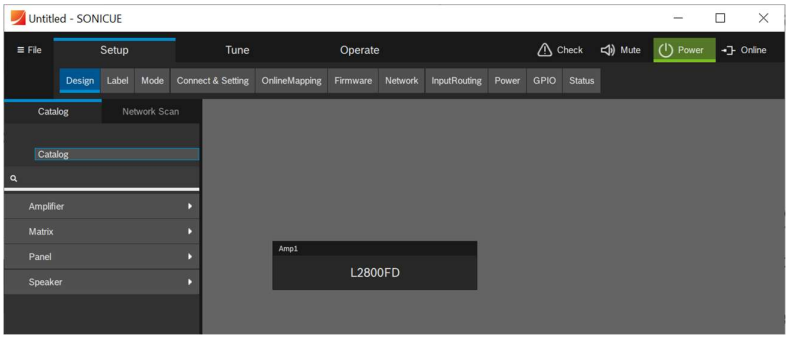
Power on the amplifier and start the SONICUE app with a new project.



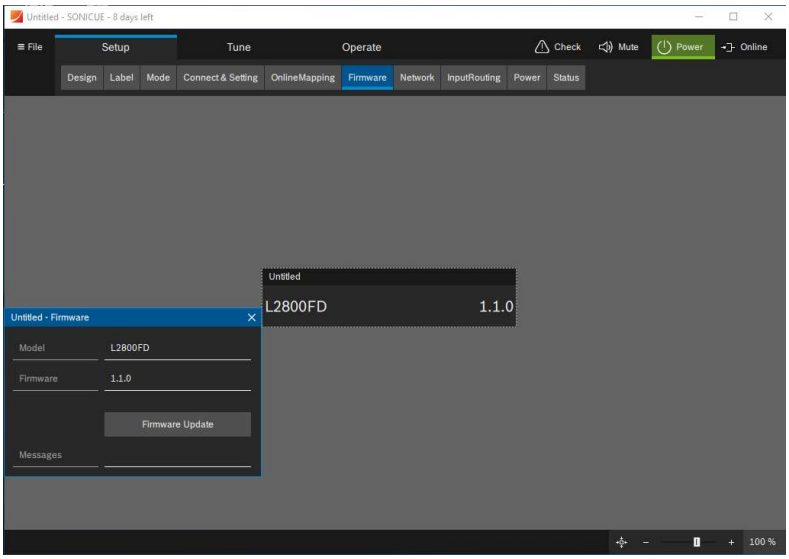
Click Network Scan tab and you will see the amplifier.

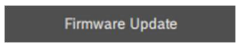


The amplifier will show up with its type, name and current firmware. Select the amplifier by clicking the line with the discovered device and use drag and drop to place the amplifier on the workspace.



Go to Firmware in the top menu, then click on the amplifier: the firmware flyout opens.



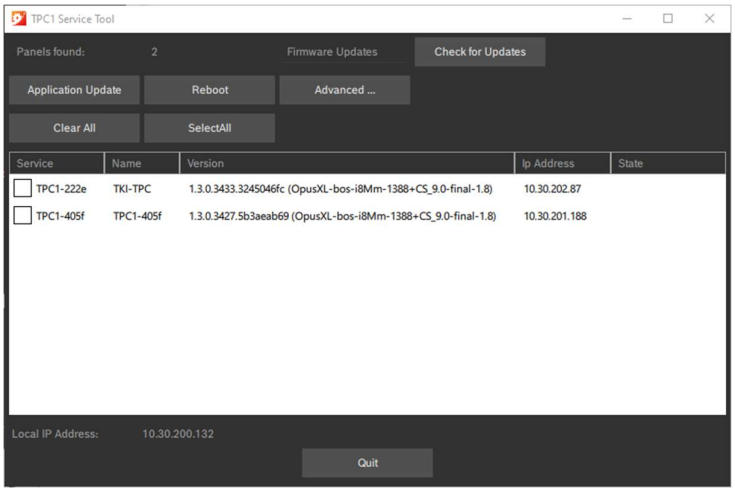
Click  which opens the browser to the designated location and select the firmware file e.g. LC_Amp_Firmware _2_0_5.bin.

Click  - to install the firmware on your amplifier. The installation will take about a minute. Make sure that in that time you do not lose the USB connection or power down the amplifier!

IMPORTANT NOTE *Update the firmware only for one amplifier at a time. Running firmware updates on multiple amplifiers might cause the process to stop!*

TPC-1

TPC-1 touch panel controller can be updated with the TPC1 tool.



Select the TPC-1 (or multiple) from the list. Application Update will open Explorer with path to the apk file on your computer. Select the .apk file for the update and click  - to start the update. The new firmware version will be shown (e.g. 1.6.0.xxx) when completed.

OMNEO Firmware Update Tool (FWUT)

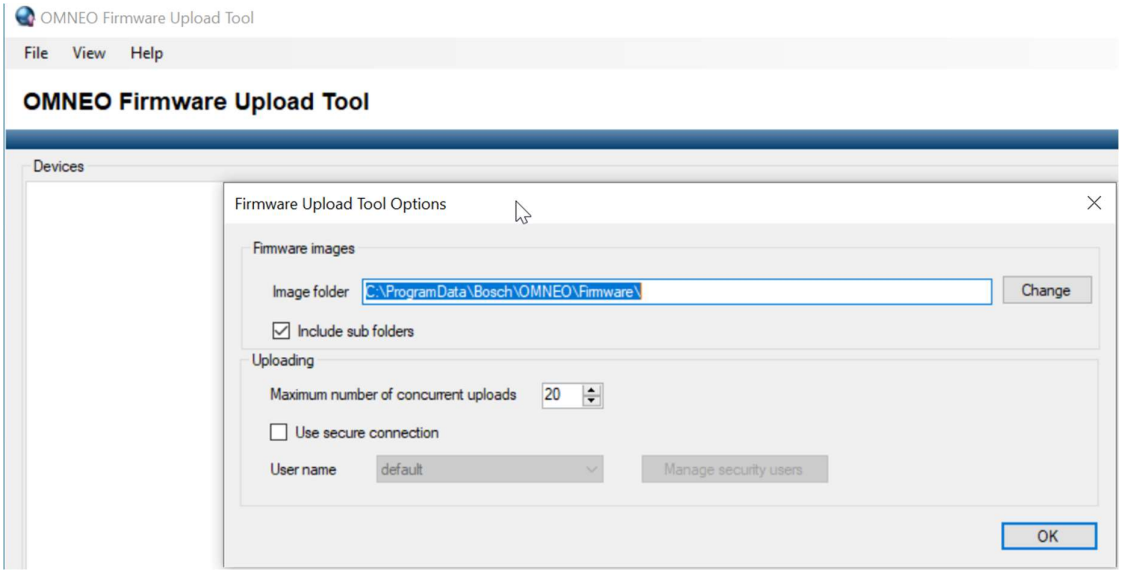
SONICUE 1.6.0 is supplied with version 2025-1009.

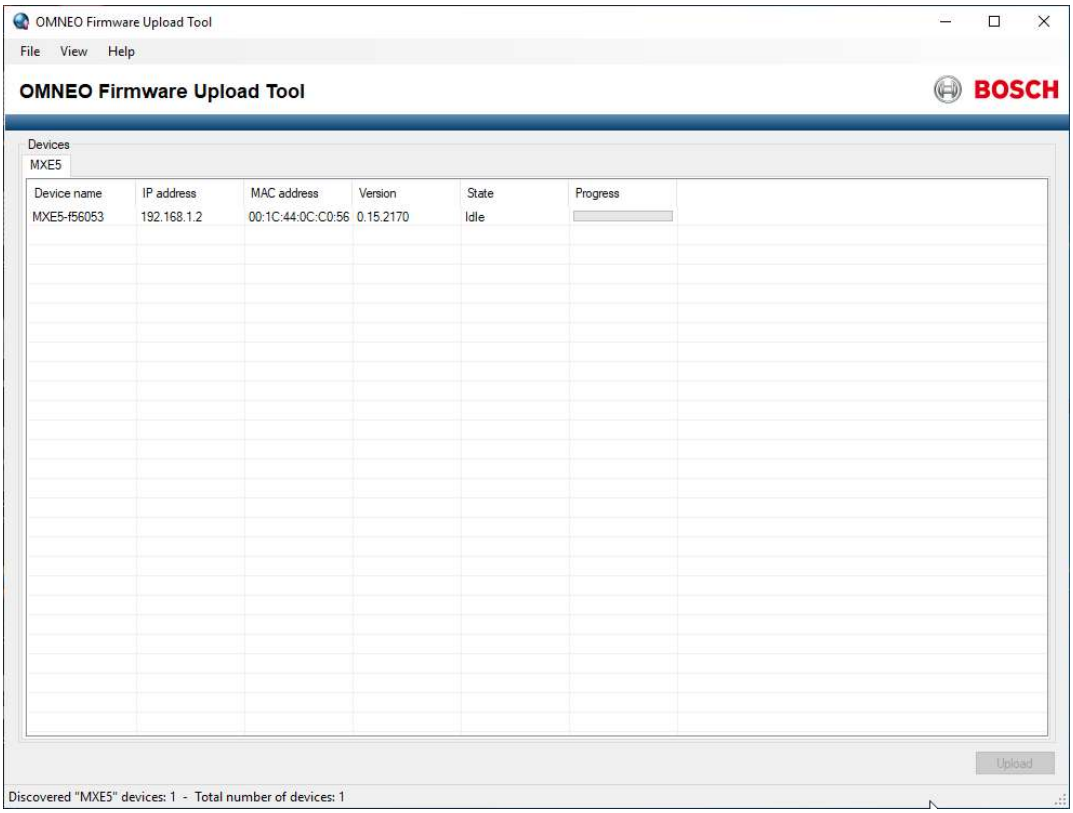
Note: only **one instance** of the OMNEO FWUT shall be active in a network at one time.

Make sure only **one network interface** is active and turn off WiFi on your PC before you start the OMNEO FWUT.

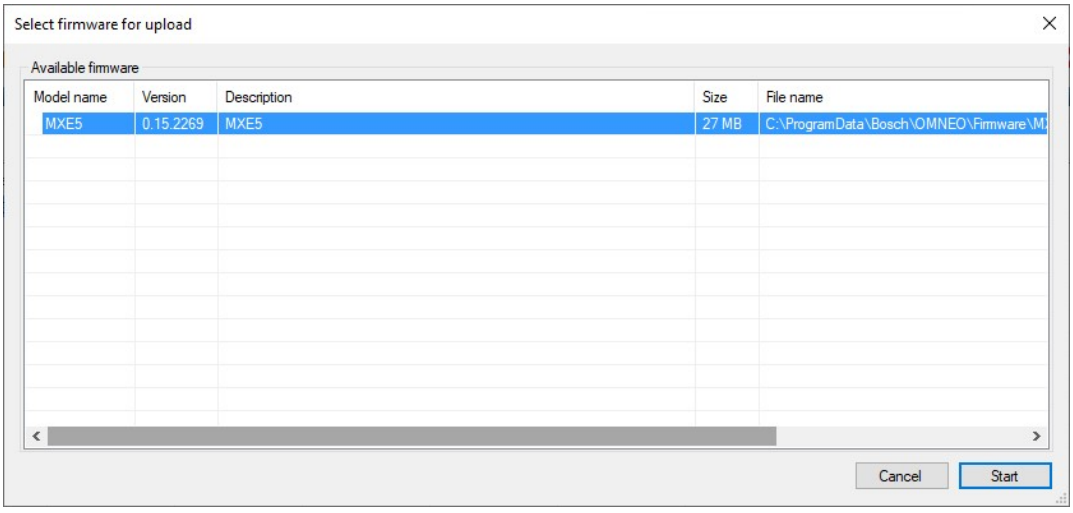
How to update MXE5, TGX/IPX, IX amplifiers, RCM-28 and WPN1

0. You need administrator rights on your PC to run the OMNEO FWUT
1. Install the OMNEO FWUT that's part of the SONICUE release
2. Before you open the FWUT make sure that SONICUE_V1.6.0_Firmware-Bundle.msi has been installed
3. Connect the device (e.g., MXE5) to your PC and start the OMNEO FWUT app, the device will be displayed. Ensure your PC's network interface is set to "*obtain IP address automatic*" and that the OMNEO FWUT is not set to "secure" operation (box unchecked).

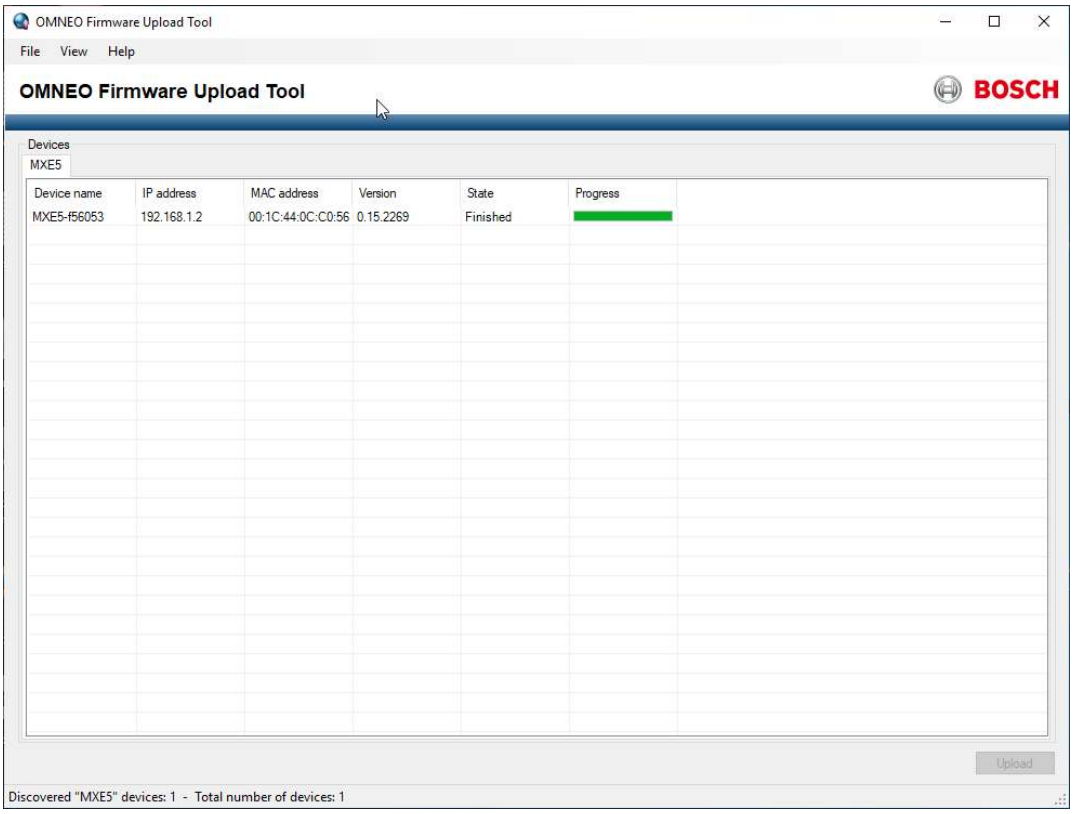




4. Select the device and then firmware version you want to upload



5. Click start, the firmware update will start and progress shown in the progress bar.



6. Wait until the green bar is all on the right side and State shows: Finished.
7. See important notes below, before using a device.

Important notes:

- Use mains power on IX for FW update. IX amplifiers are not completed just when the FWUT shows finished- wait until the orange LEDs on the front panel stop moving, or the Firmware state in SONICUE shows update done.
- MXE5: mind the fact that a firmware update on MXE5 clears the configuration, so you need to go online writing with a configuration.
- WPN1: if a WPN1 is not discovered by the FWUT tool, make a hardware reset (press and hold a paper clip in the recess on the front).