Multi Amplifier Remote Control (MARC) Software 1.0.1 Release Notes

Welcome to Dynacord's Multi Amplifier Remote Control (MARC) software. This document contains product information not covered in the "Multi Amplifier Remote Control (MARC) Quick Start Guide".

Updates for Release 1.0.1

- New speaker library for Electro-Voice speakers with additional settings for portable speakers (EKX, ELX, ELX200 and ZLX) and a revised folder structure (for further details please see below: Release notes Electro-Voice speaker settings)
- New settings to emulate Dynacord Xa 4000 amplifier processing, updated settings for D-Lite D8, TS100 and TS200.
- Added generic setting for C-Series 70 V and 100 V operation (for details please refer to Release notes "Generic" speaker settings).
- Various bug fixes (incl. delay time editing in decimals…)

Products working with Multi Amplifier Remote Control (MARC) Software

Multi Amplifier Remote Control (MARC) software supports L- and C-Series amplifier models:

L1300FD, L1800FD, L2800FD, L3600FD, C1300FDi, C1800FDi, C2800FDi, C3600FDi.

It's designed to allow configuration, remote control and supervision of multiple amplifiers using a computer with a Windows operating system. Systems of up to eight amplifiers (any model mix) can be handled within one project.

The minimum requirements to operate the software are:

- Operating System: Windows 7, Windows 8.1, or Windows 10
- CPU: 64 bit dual core @ 2.0 GHz
- Screen resolution (min): 1024 x 748 pixel
- 4 GB Memory
- USB 2.0 port

The installed software package will require about 128MB on the hard disc drive.

Installation of Dynacord's Multi Amplifier Remote Control (MARC) Software

1. You will need administrator rights to install MARC on your computer
2. Close all applications currently running on your system
3. To start the installation execute the "Dynacord MARC 1.0.1 Setup.exe" file.
4. Click on "Install" on the setup page
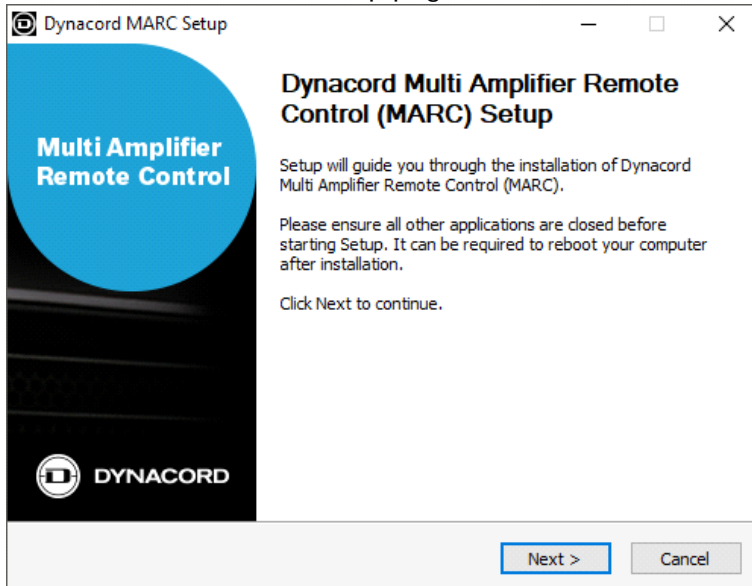
5. Accept the end user license agreement (EULA), confirm warnings and potential user account questions to continue the installation process.
6. You will get asked to select a destination folder and components from the installation package. We recommend to keep the default settings.
7. Once the installation is completed you will see this screen:
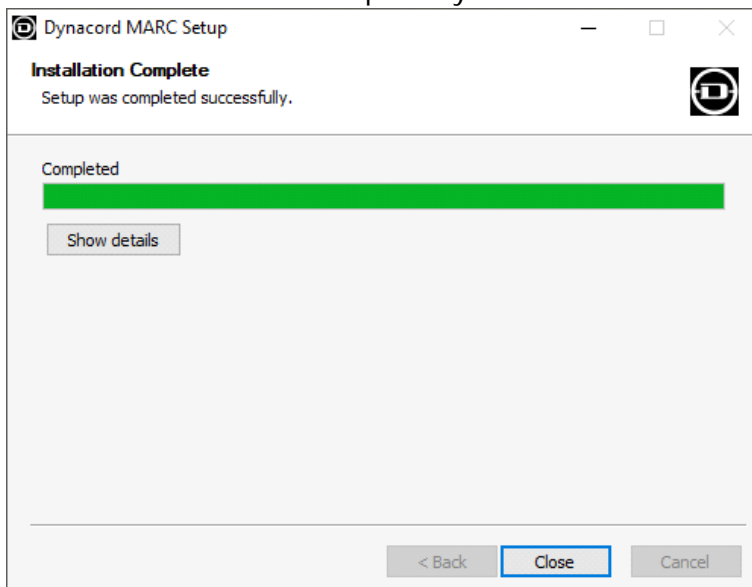
8. Close. The installer package will put a Dynacord MARC icon on your desktop as well as an entry in your program listing.

Uninstalling Dynacord's Multi Amplifier Remote Control (MARC) Software

CAUTION: Uninstalling Dynacord's MARC software will delete all program folders, not the user created files.

1. You will need administrator rights to uninstall MARC from your system.
2. Close all applications currently running on your system.
3. Select "uninstall a program" in control panel (you can search for uninstall options in Windows).
4. Select Dynacord MARC 1.0.1 from the list and start the uninstallation process.

Updating Firmware on L- and C-Series Amplifiers

1. Connect the amplifier to the computer via USB cable
2. Power on the amplifier- the amplifier will be automatically detected and show up in the field: "Amplifiers found via USB/Network".
3. Click and hold the amplifier and move it over to the rack on the left side and release the mouse ("drag and drop") - the amplifier will now show with a yellow icon.
4. Go to the Amplifier tab in the top menu and select the amplifier (single click).
5. The amplifier details will now be displayed including the current firmware version.
6. On the bottom you will find the button: "Upload".
7. Press the button to upload new firmware to this amplifier
8. You will be prompted when the update has been finished. The new firmware version will be shown in the display of the amplifier page. During the firmware update the amplifier will power-cycle to reboot with the new firmware.

Firmware update will only work in offline mode. When you are online you can see the firmware version but not update the amplifier's firmware. We recommend to use a short USB cable directly connected to the amplifier without hubs and range extenders. You can connect multiple amplifiers at once but only update the firmware device by device.

Firmware part of the 1.0.1 release is 1.2.2. Should your amplifier have a lower version we recommend to update to 1.2.2. Should you have a higher firmware number there's no need for action.

Note: we highly recommend to use the latest firmware release and keep all amplifiers used in a system to the same firmware version. Mixed firmware version can lead to unexpected, strange system behavior.

Speaker Settings

The DSP in L- and C-Series amplifiers feature the same sophisticated signal processing as Dynacord's touring amplifiers including FIR-Drive capability and TEMP limiters. This functionality is only available by loading factory speaker settings into the amplifiers (see Quick Start Guide for details). Manually you can only edit standard filters and peak limiters.

MARC 1.0.1 has three folders: "Electro-Voice", "Dynacord" and "Generic".

Release notes for Dynacord speaker settings

Dynacord folders contain factory speaker settings: each with a folder for IIR (Infinite Impulse Response) and FIR (Finite Impulse Response) speaker settings. Some speakers are supported with IIR and FIR settings, while some are only featured with IIR settings. They are divided by subfolders per speaker family/model and application (e.g. fullrange, or bi-amped, with or without subwoofer). Subwoofer settings have been included in the folders with the full range speakers.

Added new settings to emulate the performance of a Xa 4000 system amplifier for L3600FDi: LF (channel A) and HF (channel B). Also updated FIR setting for D-Lite D8 and added new settings for TS100, TS200 Vertical Array.

If you have questions or comments about the speaker settings, please contact the Dynacord technical support group within your region. Contact information for support in your region can be found via the Dynacord website: https://www.dynacord.com/contact

Release note for Electro-Voice speaker settings

The folder for Electro-Voice speaker settings is now listing the speakers in three categories: concert, install and portable.

In portable you will find new speaker settings for EKX, ELX, ELX200 and ZLX. For each speaker family there's a folder for fullrange application and another folder for applications with subwoofers. The subwoofer of all these families are available in a common folder „subwoofer". These new portable speaker settings all support the overlap option where you can use a subwoofer with a full range speaker if you desire more low frequency for your system, or you do not have enough subwoofers for your application.

The EV-Innovation family provides a library of speaker settings with consistent voicing across each series of speaker models, making it straightforward to use products from the various series within the same installation, particularly in regards to the usage of subwoofers. Certain restrictions apply to the arraying or clustering of fullrange speakers, which are described in the below paragraphs.

EVC version 1.0 speaker settings offer passive operation for both Full Range (FR) and for use with EV-Innovation subwoofers crossed over at 100 Hz (100). The Full Range settings are for standalone use, without subwoofers. Unlike EVF and EVH, overlap mode with subwoofers is not supported by the EVC fullrange models. As the fly points and rigging accessories of EVC do not support clustering, the EVC speaker settings do not support clustering. The EVC1181S subwoofer speaker setting includes TEMP limiter thermal protection.

EVF version 1.2 speaker settings offer biamp operation for both Full Range (FR) and for use with EV-Innovation subwoofers crossed over at 100 Hz (100). The Full Range settings may be used standalone or with EV-Innovation subwoofers in an overlap mode as the FR time alignment is pre-configured to support this. EVF models are also time aligned for use alongside EVH models, and can therefore be readily used within the same cluster or array. While the EVF-S subwoofers and the EVF-D subwoofer can be used and arrayed interchangeably with either "S" or "D" fullrange models, do not use "S" fullrange models with "D" fullrange models within the same array. All EVF speaker settings include TEMP limiter thermal protection.

EVH version 1.2 speaker settings offer biamp Full Range operation, which can be used standalone or in overlap with EV-Innovation subwoofers as the time alignment is preconfigured to support overlap mode. EVH models are also time aligned for use alongside EVF models, and can therefore be readily used within the same cluster or array. While the EVF-S subwoofers and the EVF-D subwoofer can be used and arrayed interchangeably with either "S" or "D" fullrange models, do not use "S" fullrange models with "D" fullrange models within the same array. All EVH speaker settings include TEMP limiter thermal protection.

Due to sensitivity differences between EVC, EVF, EVH, and the EV-Innovation subwoofers, level matching may be required. Do not mix full-range (FR) and with-subwoofer (100) settings for fullrange speakers in a cluster or array, and do not mix speakers in passive mode with speakers in biamp mode within the same array. Do not mix "S" fullrange models with "D" fullrange models in the same array.

If you have questions or comments about the presets, please contact the EV Technical Support group within your region. Contact information for support in your region can be found via the Electro-Voice website: http://www.electrovoice.com/contact.php

Release notes for "Generic" speaker settings

The folder "Generic" contains speaker settings for basic 2-way systems: subwoofer(s) with full range cabinets. There are two folders: one for X-over at 80 Hz and a second for 100 Hz (4th order Linkwitz-Riley filter). In each folder you will find three different peak limiter settings: 78 Vpk, 98 Vpk and 123 Vpk. They represent about a 200 Watts, 300 Watts and 500 Watts continuous into 8 Ohms power rating of the speaker. If in doubt we recommend to use the lower limiter voltage.

For 18-inch subs, especially when using multiple woofers the 80 Hz X-over frequency is usually the better option, for 15-inch subs 100 Hz works better in most cases. Please make sure you don't mix x-over frequencies for subwoofer and full range speaker, e.g. if you use a 80 Hz setting for the sub, also use a 80 Hz setting for the top, while limiter settings can vary to match your speakers.

New in 1.0.1: Generic settings for 70 V and 100 V operation with C-Series amplifiers. Please notice the direct drive load capacities per amplifier model.

The direct drive load capability is a measure for the total wattage that can be driven in 70V/100 V operation mode. A load capability value of 1250 watts means that this amplifier can drive e.g. 50 loudspeakers at a voltage tab of 25 watts. The dB value in parentheses indicates the delta to maximum modulation. In cases where the maximum modulation is not required, you can use the smaller amplifier model.

Model	Load Capability Dual Channel		Load Capability Bridge Mode	
	70 V Operation	100 V Operation	70 V Operation	100 V Operation
C3600FDi	−[1]	2 x 2500 W (-1.5 dB)	−[1]	−[1]
C2800FDi	2 x 1250 W (0.0 dB)	2 x 2500 W (-3.0 dB)	−[1]	1 x 1250 W (0.0 dB)
C1800FDi	2 x 1250 W (-1.5 dB)	−[2]	−[1]	1 x 1250 W (-1.5 dB)
C1300FDi	−[2]	−[2]	1 x 625 W (0.0 dB)	−[2]

−[1] This operation mode is not recommended due to efficiency reasons. Please use the next smaller amplifier for this mode.

−[2] Direct drive mode not available for this configuration.

Note for speaker settings not in the library

If you are transferring settings from older amplifier/processor models to L- and C-Series, the file format used in MARC is .sps, the same format used in IRIS-Net for RCM-26, RCM-28 and DX46/DSP600.

Technical Support Information

Found a bug? Please contact our technical customer support. They can help you to resolve issues and they will also log the bugs for our engineering.

Please use the contact information on the Dynacord website: www.dynacord.com

Contact addresses might vary by region or country.