

Waves CA3000-MX

Commercial Audio Mixer

Getting Started Guide



Waves CA3000-MX

Waves CA3000-MX is an install-ready audio mixer and processing engine for single- and multi-zone AV installations. It is designed to integrate easily into an audio system using a standard ASIO device or Dante® audio networking.

The CA3000-MX couples a powerful digital audio processing engine with an install-ready version of the industry-proven Waves eMotion LV1 mixer. The mixer supports up to 32 stereo inputs, 24 stereo aux mix outputs plus LRCM outs, and a 12x8 stereo matrix.

Dante network audio channels are supported through the integrated Dante Virtual Soundcard driver (DVS), and audio can be routed easily to and from the CA3000-MX using the Dante network controller.

ASIO devices are supported by installing the appropriate ASIO device driver directly on the CA3000-MX.

Every CA3000-MX comes equipped with four plugins that can be assigned to any number of channels: eMo D5 Dynamics, eMo F2 Filter, eMo Q4 Equalizer and eMo Generator. Waves offers an unmatched selection of audio processing plugins to address issues such as feedback suppression, dynamics control, source leveling, noise reduction, acoustic response, and broadcast streaming optimization. Visit [Waves Live Plugins](#) on the Waves website to learn more. Software and licenses are managed with the [Waves Central](#) app.

The CA3000-MX is physically rugged and operationally robust and is designed for surface or rack-mount installations. The hardware features include:

- Intel® i5 10600 Processor
- 16 GB DDR4 RAM
- 256 GB SSD internal storage
- 1 HDMI port, 1 DisplayPort
- 2 Ethernet ports (one EtherCON connector and one RJ45 connector)
- 4 USB-3 ports, 2 USB-2 ports
- Rack-mountable case, 2U half-rack



Connections and Controls

Front Panel



1	Power switch	Hold for five seconds to shut down.
2	2 USB-2 ports	
3	Fan grill	Do not block fan grills on front or back panels.



Real Panel



1	Power connector (C13)	110–240 VAC, 65W, auto-switching
2	4 USB-3 ports	
3	1 HDMI port	The HDMI port and the DisplayPort can be used interchangeably, depending on display connections and adaptors. The ports support resolutions from 1280x768 to 1920x1080.
4	1 DisplayPort	



5	Gigabit Ethernet port, RJ-45 connector	RJ-45 Gb Ethernet connector. Either this port or the EtherCON connector (see “6” below) may be used for connection to the Dante network.
6	Gigabit Ethernet port, EtherCON connector	EtherCON connector: either this port or the standard RJ-45 connector (see “5” above) may be used for connection to the Dante network. This connector is the factory-configured Dante network port.



Setup Guide

Follow these steps to prepare the CA3000-MX for operation in an AV installation with an ASIO interface or Dante network audio.

HARDWARE CONNECTIONS

1. Connect the power cables to mains. For the computer and all devices use the enclosed power cables.
2. Connect the keyboard and mouse (used for CA3000-MX setup and configuration).
3. Connect up to two displays to the video ports. There is one HDMI port and one DisplayPort.
4. Connecting the CA3000-MX to a Dante network: Connect one of the LAN Ethernet ports to the switch on the Dante audio network. The EtherCON connector is the factory-configured Dante network port. This port assignment can be changed in the Dante Virtual Soundcard (DVS) configuration window.
Note: DVS is configured at the factory as the selected Device on the System Inventory page in the eMotion LV1 Setup tab.
5. Connecting the CA3000-MX to an ASIO interface: Connect the ASIO interface to one of the USB connectors on the CA3000-MX. Follow instructions provided by the interface manufacturer to install and configure the ASIO driver on the CA3000-MX.
Note: DVS is configured at the factory as the selected Device on the System Inventory page in the eMotion LV1 Setup tab. If using an ASIO device, the corresponding device driver must be selected after installing the ASIO interface.

WAVES CA3000-MX SOFTWARE

The Waves CA3000-MX comes with the software activated and is ready to use. The following applications are included with the Waves CA3000-MX system:

- Waves LV1 Native (install-ready version of eMotion LV1)
- Audinate Dante Virtual Soundcard (DVS)

Waves eMo plugins (D5, F2, Q4, Generator) are installed and activated on the CA3000-MX.



It is also possible to manage the CA3000-MX software and plugins using your own Waves account. Follow these steps to transfer the pre-activated licenses to your account:

1. Create a free Waves account if you don't already have one (www.waves.com/create-account). This account is used to manage your Waves products and licenses.
2. Register the CA3000-MX at www.waves.com/support. The product serial number can be found on a sticker placed on the chassis of the CA3000-MX device, or on a printed sheet included in the CA3000-MX product box. Once your registration is complete, the associated product license(s) will be deposited in your license cloud.
3. Connect the CA3000-MX to the Internet using one of the Ethernet ports, and launch the Waves Central application to manage your Waves product license(s).

WAVES CA3000-MX SYSTEM POWER PROTECTION

It is highly recommended that the Waves CA3000-MX is installed in a rack with a power protection device, such as an Uninterruptible Power Supply (UPS). The UPS should include a power status notification mechanism – typically a USB connection and software driver for the protected device.

Installing the system with the UPS status notification allows monitoring of the source power. In the event of power failure, the UPS will trigger a managed shutdown of the CA3000-MX and the Windows operating environment.

Routing Setup

All devices should be properly connected and powered on. The CA3000-MX will automatically load all required drivers and software and launch the LV1 audio mixer.

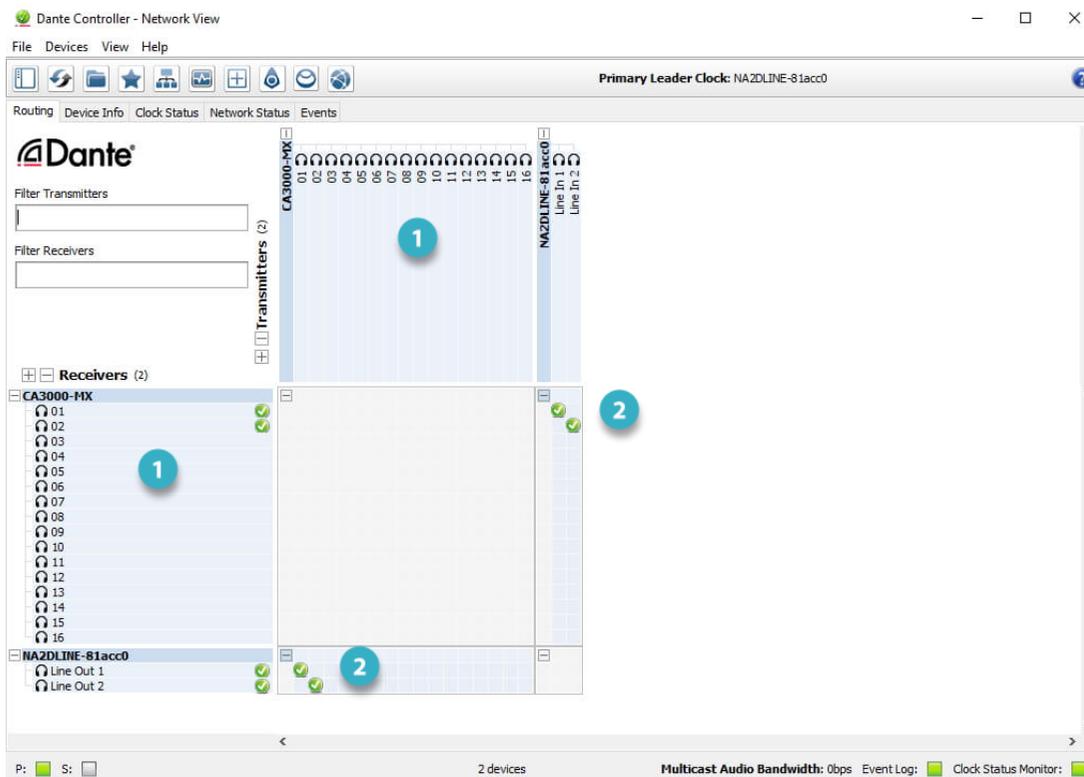


Channel Patching and Routing Overview

All audio channels are routed to and from the CA3000 using either the Dante network or the ASIO interface. For Dante installations, audio channel routing is completed using the internal audio patching on LV1 and the external Dante patching, using the Dante Controller (or another compatible routing application).

Routing Dante Channels to the CA3000-MX Using Dante Controller

The CA3000-MX appears on the Dante Controller application as a 16x16 or 32x32 channel device (depending on product option purchased). The Routing View window is a common way to create audio routes in Dante, as shown below. Refer to the Audinate website (www.audinate.com) for more information.



- 1 CA3000-MX Tx/Rx channels 16x16 are shown in this example.
- 2 Patches select routing between Dante network devices.



Routing Dante Channels to CA3000-MX Mixer Channels

Now you're ready to route the Dante channels in LV1. Dante channels can be selected as input sources or output destinations for each channel. Channel input and output routing is done in the LV1 Channel view or Patch view. In the following example, we will route rack input from a Dante channel to a single channel in the Channel view. Use the tab at the top to open the Channel view.

LV1 CHANNEL ASSIGNMENT USING CHANNEL VIEW



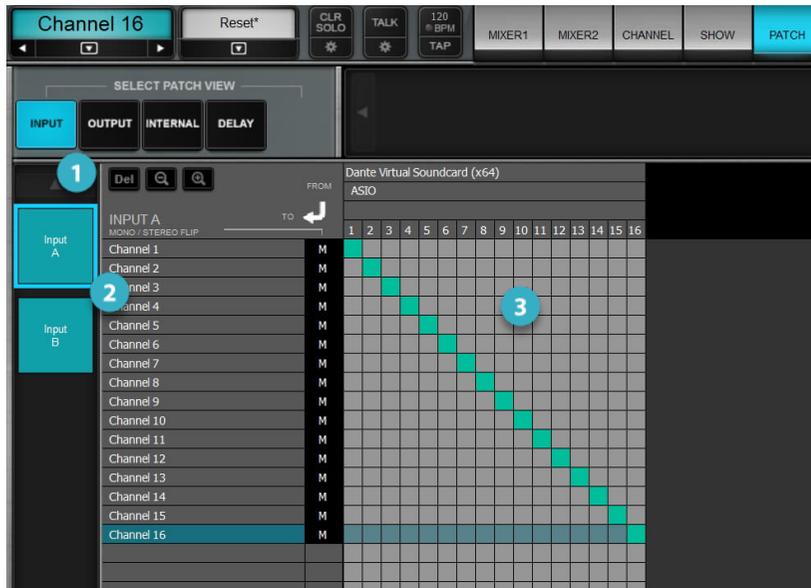
- 1 Select a channel.
- 2 Click on the Input arrow at right side. This opens the Input Device Assignment menu.
- 3 Select an input source.
- 4 Select an input audio channel. Note that channels are displayed in the "Dante Virtual Soundcard."

Channel and bus outputs are routed in a similar manner.

Confirm the routing in the Dante Controller for the network audio devices that will be connected to and from the CA3000-MX.



LV1 CHANNEL ASSIGNMENT USING PATCH VIEW



- 1 Select Input patch view.
- 2 Select “A” or “B” for desired input patch.
- 3 Patch each “Dante Virtual Soundcard” channel to desired LV1 mixer channel input.

Use the Output Patch view to route Channel and bus outputs.

Confirm the routing in the Dante Controller for the network audio devices that will be connected to and from the CA3000-MX.

Please refer to the eMotion LV1 Native product documentation at www.waves.com for instructions about setting up and using the audio mixer. Download user guides for Waves plugins from the [Waves Download Pages](#).



Specifications

Electrical

110-240 VAC, 50/60 Hz, 65 W
auto-switching;
C13-type connector

Dimensions

Width: 22 cm / 8.7 in
Depth: 28.4 cm / 11.2 in
Height: 8.6 cm / 3.4 in

Weight: 3.3 Kg / 7.4 lb

Software Enclosed

Windows 10
Waves LV1 Native
Audinate Dante Virtual Soundcard

