

# **DN-508MX**

User Guide	English ( 3 – 16 )
Guía del usuario	Español ( 17 – 30 )
Guide d'utilisation	Français ( 31 – 44 )
Guida per l'uso	Italiano ( 45 – 58 )
Benutzerhandbuch	Deutsch ( 59 – 71 )
Annendiy	Fnalish (72 – 75



## **User Guide (English)**

#### Introduction

DN-508MX is a professional 8-zone mixer and with remote controllability via RS-232C, RS-422, and IP. It has professional-grade audio circuitry, mic/line pad functions, full BTL (bridgetied load) balanced outputs, 3-band input equalization, 5-band output equalization, priority, delay, dynamics, and an automatic power-saving function. When connected to a network or router, you can use a web-based interface to control the system, as well.

Please see this guide's **Setup** chapter to learn how to integrate DN-508MX with your audio system, and then refer to the **Operation** chapter to start using DN-508MX.

#### **Box Contents**

DN-508MX

**Euroblock Connectors** 

- (4) 5-Pin (for the Line Outputs 1-8)
- (2) 4-Pin (for Mic/Line Inputs 1 & 2)
- (4) 3-Pin (for Mic/Line Inputs 3-6)
- (1) 2-Pin (for the Mute connector)

Power Cable

User Guide

Safety & Warranty Manual

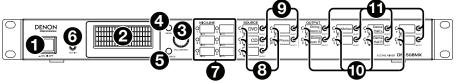
#### Support

For the latest information about this product (system requirements, compatibility information, etc.) and product registration, visit **denonpro.com**.



#### **Features**

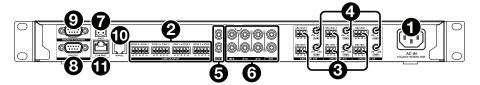
#### **Front Panel**



- 1. Power Button: Press this button to power DN-508MX on or off.
- 2. Display: This screen indicates the current settings, status, etc.
- 3. **Volume/Sel:** Turn the knob to navigate or scroll through the options shown in the display, and then press the knob to select one.
- 4. Menu: Press this button to switch between the Menu and the settings of the current zone in the display. In the Menu, turn the Volume/Sel knob to navigate or scroll through the available options, and then press the knob to select it.
- Mute/Back: When viewing the settings of the current zone, press this button to select the Mute setting. To mute or unmute the zone, turn the Volume/Sel knob to select Mute or Unmute, and then press it to confirm your choice.
  - When in the Menu, press this button to return to the previous screen.
- Aux In (1/8" / 3.5 mm): Use a standard stereo 1/8" (3.5 mm) cable to connect an optional audio source to this stereo input. When a cable is connected to this input, the Aux In RCA inputs on the rear panel will be disabled.
- Mic/Line Indicators: These lights will illuminate different colors to show the signal status of each mic/line input:
  - Off: The input is receiving no signal or a very low-level signal.
  - Green: The input is receiving a signal at an optimal level.
  - Amber: The input's signal is very high.
  - **Red:** The input's signal is "peaking" (higher than 0 dB). Decrease its **Gain** knob on the rear panel or decrease the volume of the source to prevent "clipping" (distortion).
- 8. **Source Indicators:** These lights will illuminate different colors to show the signal status of the aux in and ST inputs:
  - Off: The input is receiving no signal or a very low-level signal.
  - Green: The input is receiving a signal at an optimal level.
  - Amber: The input's signal is very high.
  - Red: The input's signal is "peaking" (higher than 0 dB). Decrease the volume of the source to prevent "clipping" (distortion).
- Source Selectors: Press one of these buttons to assign or unassign that source to the
  currently selected zone. When a source is assigned to the zone, its button will be lit amber.
  To select a zone, press one of the output selectors.
- 10. Output Indicators: These lights will illuminate different colors to show the signal status of the line outputs (zone outputs):
  - Off: The output is sending no signal or a very low-level signal.
  - Green: The output is sending a signal at an optimal level.
  - Amber: The output's signal is very high.
  - **Red:** The output's signal is "peaking" (higher than 0 dB). Decrease the volume of the zone to prevent "clipping" (distortion).
- 11. **Output Selectors:** Press one of these buttons to select that zone. The button for the currently selected zone will be lit amber.



#### **Rear Panel**



- 1. Power Input: Use the included power cable to connect this input to a power outlet.
- Line Outputs: Use Euroblock connectors to connect your loudspeakers to these outputs.
   Each group of 5 connections corresponds to 2 zones. Each zone has a hot (H) and cold (C) connector, and each pair of zones shares the ground (G) connector. Make sure each loudspeaker is connected to the desired zone.
- 3. **Mic/Line Inputs:** Use Euroblock connectors to connect your mic-level or line-level audio sources to these inputs. Each input has a hot (**H**), cold (**C**), and ground (**G**) connector. Inputs 1 and 2 have an additional connector for Page Switch. Remember to adjust the **Gain** knob to set the input volume level.
- 4. Mic/Line Gain: Turn these knobs to set the input gain for each mic/line input.
- Aux In (RCA): Use a standard stereo RCA cable to connect an optional audio source to this stereo input. When a cable is connected to the Aux In on the front panel, these inputs will be disabled.
- ST Inputs: Use standard stereo RCA cables to connect line-level audio sources to these inputs.
- 7. **Mute Connector:** Use a 2-pin Euroblock connector to attach a switch to this connector. The switch can then mute or unmute the incoming signal from **all** audio sources.
- 8. **Remote Port:** This port lets you connect a computer to DN-508MX. Use a 9-pin D-Sub cable to make this connection. You can use the computer with a third-party utility to manage DN-508MX via serial communication.
- Remote Extend Port: This port lets you connect another DN-508MX to the host device.
   Use a 9-pin D-Sub cable to make this connection. You can use a computer with a third-party utility to control all connected DN-508MX units via serial communication.
- 10. RS-422 Port: This port lets you connect a host device to DN-508MX. You can then use a third-party utility to control DN-508MX via serial communication. Use a standard analog telephone cable with RJ45 connectors to make this connection.
- 11. Ethernet Port: This port lets you connect DN-508MX to a network. Connect this port to a computer via a network switch or router. Alternatively, connect it directly to a computer using an Ethernet crossover cable. This connection lets you control DN-508MX though the web interface.



#### Setup

Items not listed under *Introduction* > *Box Contents* are sold separately.

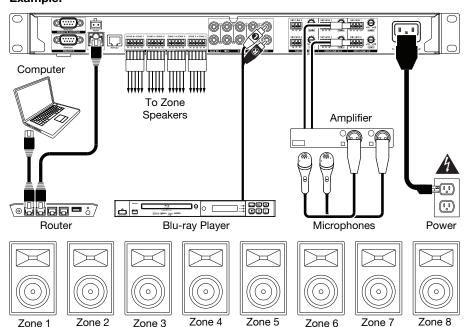
#### To set up DN-508MX with your sound system:

- If you are using any audio source with RCA outputs (Blu-ray® players, stereos, etc.), use standard RCA cables to connect them to the ST inputs on the rear panel. Your audio sources must be line-level (no phono-level turntables).
- 2. If you are using an amplifier or other audio source with outputs that can be wired into standard Euroblock connectors, connect them to the **mic/line inputs** on the rear panel.
- Use standard Euroblock connectors to connect the loudspeakers of your different zones to the line outputs on the rear panel. Each group of 5 connections corresponds to 2 zones. Each zone has a hot (H) and cold (C) connector, and each pair of zones shares the ground (G) connector.
- 4. To manage DN-508MX using its web interface, connect the Ethernet port and your computer to a network switch or router using standard Ethernet cables. If your computer is wirelessly connected to your router, connect just DN-508MX to that router. Alternatively, connect DN-508MX's Ethernet port directly to a computer using an Ethernet crossover cable.
- 5. To manage DN-508MX using serial communication, connect the remote port to your computer using a 9-pin D-Sub cable. Use a third-party utility to manage DN-508MX. Alternatively, connect the RS-422 port to a third-party utility using a standard analog telephone cable with RJ45 connectors.

**Tip:** We recommend using the web interface to control DN-508MX rather than serial communication. It is much easier to use the web interface via IP communication than a third-party utility via RS-232C or RS-422 serial communication.

- 6. Use the included power cable to connect DN-508MX to a power outlet.
- 7. Power on all of your audio sources (Blu-Ray® players, stereos, microphones, amplifiers, etc.).
- 8. Power on DN-508MX.

#### **Example:**





#### Operation

After setting up and powering on DN-508MX and your connected devices, you can start using DN-508MX.

Important: The default administrator password is adminpwd. There is no default operator password.

#### **Using the LCD Interface**

#### **Navigating the Display and Menus**

To switch between the Menu and the settings of the current zone, press Menu.

To move through the options in the display, turn the Volume/Sel knob.

To select an option in the display, press the Volume/Sel knob.

To return to the previous screen, press Mute/Back.

#### **Managing Zones**

To select a zone, press the desired output selector. The currently selected one will be lit amber. The source selectors of any audio sources that are assigned to that zone will light up amber, as well.

To assign or unassign an audio source to a zone, press the desired output selector, and then press the desired source selector. The source selector for the currently assigned audio source will be lit amber. Only one source can be assigned to a zone at a time.

To set the volume level of a zone, press the desired output selector, and then turn the Volume/Sel knob.

To mute a zone, press the desired output selector, and then press the Mute/Back button. Turn the Volume/Sel knob to select whether to Mute or Unmute the channel, and then press the knob to select it.

#### Menu

Click the **Menu** button and select **Preset**, **System**, or **Information** to view the corresponding settings page.

#### 1. Preset

Mic/Line: Select this to edit Mic/Line Source 1–6. Once selected, you can set the frequency (Freq), Gain, or bandwidth (Q) of the 3 available equalizations: a low-shelving filter (SHL), a high-shelving filter (SHH), and a parametric equalizer (PEQ). Only the parametric equalizer has a bandwidth control. You can also set the Input Volume that each Mic/Line Input sends to each Zone.

Source: Select this to edit Source 1-4 or Aux. Once selected, you can set the frequency (Freq), Gain, or bandwidth (Q) of the 3 available equalizations: a low-shelving filter (SHL), a high-shelving filter (SHH), and a parametric equalizer (PEQ). Only the parametric equalizer has a bandwidth control.

Output: Select this to edit Zone 1-8.

- Source Select: Select this to choose Source 1–4 or Aux. You can use the Volume/Sel knob to select a source, or press the source selectors.
- Source Level: Select this to set the input level of the selected source.
- Source Mute: Select this to turn source mute on or off.
- Mic Level: Select this to set the output level of the microphone.
- PEQ: Set the frequency (Freq), Gain, or bandwidth (Q) of the 5 frequency ranges: Low, Mid-Low, Mid, Mid-High, and High.
- Master Level: Select this to set the zone's overall output level.

**Note:** If a zone is stereo, it will actually use 2 zones (e.g. Zone 1-2, 3-4) that share the same output settings. The second zone of a stereo pair (e.g. Zone 2 or 4) will show as unavailable for editing. You can edit the first zone, or change the Zone's settings in the Output menu.



#### 2. System

**Schedule:** Select a Schedule 1–30 to edit. To edit a Schedule, you may have to enter the administrator password.

- On/Off: Select this to enable or disable the schedule. You can use multiple schedules simultaneously.
- **Date:** Select this to set a specific date on which to apply the schedule (instead of regular days of the week). Click each menu to select the **Month**, **Day**, and **Year**. You can also set the schedule to repeat every month, day, and/or year.
- Day of Week: Select this option to apply the schedule regularly to certain days of the week (instead of a specific date). Select each day to turn it on or off.
- Time: Select this option to set the Hour and Minute when the schedule will be applied. You
  can also set the schedule to repeat every hour.
- Command: This field will show any serial commands assigned to the Schedule. Serial commands can be added or changed using Web Remote.

Mic/Line: Select a Mic/Line 1-6 to edit.

- Name: Select this to edit the display name of the Mic/Line channel, up to 32 characters.
- Mic/Line: Select this to set the input level for a microphone (Mic) or a line-level device (Line).
- Hi pass filter: Select this to turn the high-pass filter on or off.
- **Phantom:** Select this to turn phantom power on or off. Please note that most dynamic microphones do not require phantom power, while most condenser microphones do. Consult your microphone's documentation to find out whether it needs phantom power.

Source: Select a Source 1-4, Aux, or Aux AGC to edit.

- Name: Select this to edit the display name of the Source up to 32 characters.
- Gain: Select this to set the gain trim level of each audio source.
- Aux AGC: These settings control the automatic gain control (AGC), which adjusts the gain level
  to help reduce noise in the signal.
  - Compensation Level: Select this to set how much gain is applied after the signal is compressed by the AGC.
  - Response Time: Select this to set how quickly the AGC reacts to audio signal.
  - Noise Gate: Select this to enable (On) or disable (Off) the noise gate. When on, the audio signal will be automatically muted if it is below a certain volume level. This eliminates moments during which the source is not producing any sound but there is still detectable noise in the audio signal.

Output: Select a Zone 1-8 to edit.

- Name: Select this to edit the display name of the Zone Output up to 32 characters.
- Mono/Stereo: Select this to set whether the audio signal the zone plays is monaural (Mono) or binaural (Stereo). When set to Stereo it will actually use 2 zones (e.g., Zones 1–2, Zones 3–4), which will share the same output settings.

**Note:** When using a Stereo output, editing the first zone will apply changes to both zones. The second zone will show as unavailable for editing.

- Priority Settings: Each zone has settings for 1<sup>st</sup> priority and 2<sup>nd</sup> priority. When the mic/line input (set in the Source menu) detects an incoming audio signal, any other signal sent to that zone will be attenuated ("ducked") so the incoming signal can be heard. The 1<sup>st</sup>-priority source will attenuate the 2<sup>nd</sup>-priority source.
  - Volume: Select this to set the volume level of the incoming audio signal.
  - Source: Select this to set the source for the priority: Mic/Line 1-6 or no source (None).
     Setting both priorities to the same mic/line input will result in greater-than-normal attenuation.
  - Threshold: Select this to set the threshold. The incoming audio signal must be louder than this threshold to attenuate the current signal. A lower threshold produces more attenuation.



- Attack Time: Select this to set how long it takes for the current signal to be fully attenuated.
- Hold Time: Select this to set how long the current signal remains fully attenuated after the incoming audio falls below the threshold.
- Release: Select this to set how long it takes from the fully attenuated signal to return to its
  previous level after the incoming audio signal falls below the threshold.
- Attenuation Level: Select this to set how much the current signal's volume is attenuated ("ducked").
- Delay: Select this to set how long it takes for the zone to play any incoming audio signal after it
  receives it. This is useful when multiple zones are playing the same audio signal—listeners in
  certain areas may hear that same signal multiple times because the sound from each zone
  reaches them at different times rather than all at once. Delaying the zone's audio output can
  help prevent this effect.
- Dynamics: These settings determine the dynamic control (via compression) of the zone's output signal.
  - o On/Off: Select this to enable (On) or disable (Off) the zone's dynamic control.
  - Threshold: Select this to set the threshold. The incoming audio signal must be louder than this threshold to trigger the dynamic control.
  - Ratio: Select this to set the ratio of the dynamic control—how much the signal is attenuated relative to its original level.
  - Attack Time: Select this to set how long it takes for the dynamic control to compress the signal.
  - Release: Select this to set how long it takes from the compressed signal to return to its original level after the incoming audio signal falls below the threshold.
  - o Gain: Select this to set how much gain is applied after the signal is compressed.
  - Knee: Select this to set the knee of the dynamic control. This determines how sharp or smooth the "curve" is when compression is applied at the threshold. A "hard" knee produces very dramatic compression, while a "soft" knee produces a more natural-sounding compression.

Mute: Select this to mute either the music only (Music) or all audio signals (All).

Ethernet: Select this to configure your Ethernet settings. Select IP Address, Subnet Mask, Gateway, or IP Control Port to configure DN-508MX to detect network settings automatically (Auto On/Off), or enter settings manually using the Volume/Sel knob.

**Baudrate:** Select this to set the baud rate of each port. **RS232C** is for the **remote port**. **RS422** is for the **RS-422 port**. Each rate is shown bits per second (BPS).

**Time:** Select this to edit the **System Time** and set the current month, day, year, hour, minute, and second. DN-508MX will display this at the top of the web interface and will use it for scheduling.

You can also set DN-508MX to enable (**On**) or disable (**Off**) daylight saving time. When on, select each menu below it to set the month, day, and hour that daylight saving will start and end. Choose **Offset** to select how much the time will be shifted.

**Passwords:** Use these fields to set a new password for the administrator (**Admin**), which can control all DN-508MX functions, or the operator (**Operator**), which can control only certain functions.

#### 3. Information

Firmware Version: This field shows the current firmware version installed in DN-508MX.

Important: Visit denonpro.com to download the latest firmware for DN-508MX.

**Network Information:** Select this to view the current settings for **IP Address**, **Mac Address**, **Gateway**, and **DNS**.



#### **Using the Web Interface**

**Important:** To use the web interface, both DN-508MX and your computer must be connected to the same network. We recommend connecting the **Ethernet port** and your computer to a network switch or router using standard Ethernet cables. If your computer is wirelessly connected to your router, connect just DN-508MX to that router. Alternatively, connect DN-508MX's **Ethernet port** directly to a computer using an Ethernet crossover cable.

#### To open the DN-508MX web interface, on your computer, open a web browser.

- If DN-508MX is connected directly to a computer, go to <a href="http://192.168.0.1">http://192.168.0.1</a> in your web browser. You may have to enter the operator password. There is no default password, but if you have already set one, you will have to enter it here.
- If DN-508MX is connected to a network switch or router (wirelessly or wired), use the Menu button and the Volume/Sel knob to do the following:
  - i. Press Menu to enter the Menu.
  - ii. Select and enter **2. System**, then **Ethernet**, then **IP Address**, and then the **Auto** setting (you may have to enter the administrator password).
  - iii. Set Auto to On, and select Yes when asked if you want to apply the change.
  - iv. Press the Mute/Back button to return to the previous page, and then select IP Address again. The display will now show a 12-digit IP address. Enter this address into your web browser as <a href="http://###.###.###">http://###.###.</a>. You may have to enter the administrator password. The default administrator password is adminpwd.

#### To use the controls shown in the web interface:

- Pages: Click the Output, Input, or Settings button at the top of the window to view each
  page in the web interface below.
- Faders: Click and drag a fader to set its level. Alternatively, click the dB field below it, enter a value with your computer keyboard, and then click elsewhere in the page.
- Menus: Click a menu, and then click an option to select it.
- Buttons: Click a button to select it.
- Checkbox: Click a checkbox to select or deselect it.
- Text Field: Click a text field, enter a name with your computer keyboard, and then click elsewhere on the page.

**Important:** In order to make changes in the web interface, first click the lock icon at the top of the page. You will need to enter the Administrative password to unlock the page to make changes. The default Admin password is **adminpwd**. Once you have finished editing, you can lock the page again to prevent further changes.



#### Output

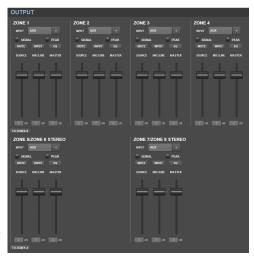
Click the **Output** button at the top to view the Output page where you can set the levels, equalization, inputs, and mute status of each zone.

If a zone is stereo, it will actually use 2 zones (e.g., Zones 1–2, Zones 3–4), which will share the same output settings. If a zone is mono, it will use one zone only.

**Input Menu:** Click this menu to select which source is sent to the zone.

**Signal:** This light indicates that the zone is sending out an audio signal.

**Peak:** This light indicates that the zone is sending out an audio signal that is "peaking" (exceeding 0 dB). If this happens, lower the level of the **Source** or **Mic/Line** fader.



**Mute:** Click this button to mute or unmute the source. The button will be highlighted when muted.

**Input:** Click this button to open the Zone Input window. In this window, click and drag each fader to set the audio signal level that each **mic/line input** sends specifically to that zone. (This does not affect the levels that those inputs send to other zones.)

**EQ:** Click this button to open the Zone EQ window. In this window, click each menu to set the frequency (**Freq**), **Gain**, or bandwidth (**Q**) of the 5 frequency ranges: **Low**, **Mid-Low**, **Mid-High**, and **High**.

**Source:** Click and drag this fader to set the input level of the source you selected in the **Input Menu** (described above).

**Mic/Line:** Click and drag this fader to set the overall level of the **mic/line inputs**. This setting is applied in addition to the settings in the Zone Input window (described above).

Master: Click and drag this fader to set the zone's overall output level.

**To Zone 5-8 / To Zone1-4:** Click either of these buttons to jump to the lower or upper half of the page, respectively.



#### Input



Click the **Input** button at the top to view the Input page where you can set the equalization or output level of each input (the **mic/line inputs**, **ST inputs**, or **Aux In**).

Signal: This light indicates that the input is receiving an audio signal.

**Peak:** This light indicates that the input is receiving an audio signal that is "peaking" (exceeding 0 dB). If this happens, reduce the setting of the **Mic/Line Gain** knob on the rear panel (for **Mic 1–6**) or on the audio source itself (for **Source 1–4** and **Aux**).

EQ: Click this button to open the Input EQ window. In this window, click each menu to set the frequency (Freq), Gain, or bandwidth (Q) of the 3 available equalizations: a low-shelving filter (SHL), a high-shelving filter (SHH), and a parametric equalizer (PEQ). Only the parametric equalizer has a bandwidth control.

**Output:** Click this button to open the Mic Output window. In this window, click and drag each fader to set the audio signal level that each mic/line channel sends specifically to each zone.

#### **Settings**

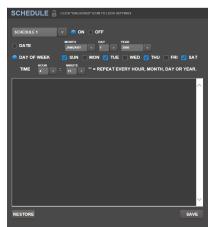
Click the **Settings** button at the top and select **Schedule**, **I/O Name**, or **System** to view the corresponding settings page.

**Important:** Click the lock icon at the top of the page to lock or unlock the settings. When locked, you cannot edit any of the settings. This is helpful to prevent any accidental changes to the overall operation.

#### **Schedule**

**Schedule:** Click this menu to select a schedule to view.

- On/Off: Click one of these buttons to enable or disable the schedule. You can use multiple schedules simultaneously.
- Date: Click this menu to set a specific date on which to apply the schedule (instead of regular days of the week). Click each menu to select the Month, Day, and Year. The \*\* option sets the schedule to repeat every month, day, or year.
- Day of Week: Click this menu to apply the schedule regularly to certain days of the week (instead of a specific date). Click each checkbox to select or deselect the day.
- Time: Click each menu (Hour and Minute) to set when the schedule will be applied. The \*\* option sets the schedule to repeat every hour.
- Restore: Click this menu to reset all changes you have made to the current schedule.
- Save: Click this menu to save the currently shown schedule.





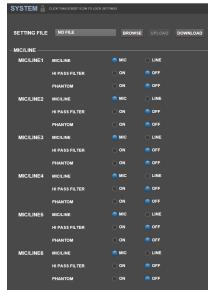
#### I/O Name

This window shows the names of all of your inputs (mic/line inputs, ST inputs, and Aux In) and zone (line outputs). Click each field and enter a name using your computer keyboard. Click **Save** to save the names.



#### System

- Setting File: This field shows the currently loaded setting file, if any. To download the current setting file (if any) to your computer, click **Download**. To upload a setting file from your computer to DN-508MX, click **Browse**, find and select the file, and then click **Upload**.
- Mic/Line: For each mic/line input, select whether the input is a microphone (Mic) or a line-level device (Line), whether the high-pass filter should be enabled (On) or disabled (Off), and whether the microphone should receive phantom power (On) or not (Off). Please note that most dynamic microphones do not require phantom power, while most condenser microphones do. Consult your microphone's documentation to find out whether it needs phantom power.
- Source: Click each Gain menu to set the gain trim level of each audio source. All sources have an editable automatic gain control (AGC), which adjusts the gain level to help reduce noise in the signal:
  - Compensation Level: Click this menu to set how much gain is applied after the signal is compressed by the AGC.
  - Response Time: Click this menu to set how quickly the AGC reacts to audio signal.
  - Noise Gate: Click one of the buttons to enable (On) or disable (Off) the noise gate. When on, the audio signal will be automatically muted if it is below a certain volume level. This eliminates moments during which the source is not producing any sound but there is still detectable noise in the audio signal.







- Output: Use these settings to determine how each zone manages its audio output.
  - Zone Mono/Stereo: Click this menu to set whether the audio signal the zone plays is monaural (Mono) or binaural (Stereo). When set to Stereo it will actually use 2 zones (e.g., Zones 1–2, Zones 3–4), which will share the same output settings.
  - Priority Settings: Each zone has settings for 1<sup>st</sup> priority and 2<sup>nd</sup> priority. When the mic/line input (set in the Source menu) detects an incoming audio signal, any other signal sent to that zone will be attenuated ("ducked") so the incoming signal can be heard. The 1<sup>st</sup>-priority source will attenuate the 2<sup>nd</sup>-priority source.
    - Volume: Click this menu to set the volume level of the incoming audio signal.
    - Source: Click this menu to set the source for the priority: Mic/Line 1-6 or no source (None). Setting both priorities to the same mic/line input will result in greater-thannormal attenuation.
    - Threshold: Click this menu to set the threshold. The incoming audio signal must be louder than this threshold to attenuate the current signal. A lower threshold produces more attenuation.
- ZONE1 MONOSTEREO MONO STEREO

  1ST PRORITY VOLUME ME TO THRESHOLD MAD THR
- Attack Time: Click this menu to set how long it takes for the current signal to be fully attenuated.
- Hold Time: Click this menu to set how long the current signal remains fully attenuated after the incoming audio falls below the threshold.
- Release: Click this menu to set how long it takes from the fully attenuated signal to return to its previous level after the incoming audio signal falls below the threshold.
- Attenuation Level: Click this menu to set how much the current signal's volume is attenuated ("ducked").
- Delay: Click this menu to set how long it takes for the zone to play any incoming audio signal after it receives it. This is useful when multiple zones are playing the same audio signal—listeners in certain areas may hear that same signal multiple times because the sound from each zone reaches them at different times rather than all at once. Delaying the zone's audio output can help prevent this effect.
- Dynamics: These settings determine the dynamic control (via compression) of the zone's output signal.
  - On/Off: Click this menu to enable (On) or disable (Off) the zone's dynamic control.
  - Threshold: Click this menu to set the threshold. The incoming audio signal must be louder than this threshold to trigger the dynamic control.
  - Ratio: Click this menu to set the ratio of the dynamic control—how much the signal is attenuated relative to its original level.
  - Attack Time: Click this menu to set how long it takes for the dynamic control to compress the signal.
  - Release: Click this menu to set how long it takes from the compressed signal to return to its original level after the incoming audio signal falls below the threshold.
  - Gain: Click this menu to set how much gain is applied after the signal is compressed.
  - Knee: Click this menu to set the knee of the dynamic control. This determines how sharp or smooth the "curve" is when compression is applied at the threshold. A "hard" knee produces very dramatic compression, while a "soft" knee produces a more naturalsounding compression.



- Mute: Click one of these buttons to mute either the music only (Music) or all audio signals (All).
- Ethernet: Use these controls to configure your Ethernet settings. Click one of the Mode buttons to set them to detect the network settings automatically (Auto) or to use the settings you enter yourself (Manual). Click the IP Address, Subnet Mask, Gateway, or IP Control Port fields and enter the numbers for each using your computer keyboard.
- Baudrate: Click one of the buttons for each port to set the baud rate of each one. RS232C is for the remote port. RS422 is for the RS-422 port. Each rate is shown bits per second (BPS).
- Time: Click each menu next to System
  Time to set the current month, day, year,
  hour, minute, and second. DN-508MX
  will display this at the top of the web
  interface and will use it for scheduling.



Click one of the **Enable** buttons to enable (**On**) or disable (**Off**) daylight saving time. When on, click each menu below it to set the month, day, and hour that daylight saving will start and end. Click the **Offset** menu to select how much the time will be shifted.

Password: Use these fields to set a new password for the administrator (Admin), which can control all DN-508MX functions, or the operator (Operator), which can control only certain functions. Click each field and enter the characters your current password (Old Password) and the new password twice (New Password and Confirm Password). Click Save to save the new password.

**Important:** The default administrator password is **adminpwd**. There is no default operator password.

Firmware: This field shows the DN-508MX firmware file to upload, if any. To upload a firmware file from your computer to DN-508MX, click Browse, and then find and select the file. After that, click Verify to confirm the file is valid. If it is valid, then click Execute to update the firmware.

Important: Visit denonpro.com to download the latest firmware for DN-508MX.



Information: This section shows the current network addresses (as set in the Ethernet section)
and firmware version (as set in the Firmware section).



## **Troubleshooting**

If you encounter a problem, do the following:

- Make sure all cables, devices, and/or media are properly and securely connected.
- Make sure you are using the unit as described in this User Guide.
- Make sure your other devices or media are working properly.
- If you believe the unit is not working properly, check the following table for your problem and solution.

Problem	Solution
Power does not turn on.	Make sure the unit is properly connected to a power outlet.
The unit does not produce any sound, or the sound is distorted.	Make sure all cable, device, or media connections are secure and correct.
	Make sure none of the cables are damaged.
	Make sure the settings on your amplifier, mixer, etc. are correct.
	Make sure you have correctly set the source and output settings.
	Make sure the selected zones are not muted.
The unit produces sound that is distorted.	Make sure all cable, device, or media connections are secure and correct.
	Make sure none of the cables are damaged.
	Make sure the settings on your amplifier, mixer, etc. are correct.
The source sound is too low, or the sound has	Make sure the gain is properly set.
noise.	Make sure the channel is set to receive the proper Line-level or Mic-level signal.
The microphone does not produce any sound.	Make sure the connections are secure and correct.
	Check with the microphone manufacturer to see if the microphone needs phantom power or not.
For stereo sound, the positions of the instruments are inverted left/right.	Make sure the connections of the speakers and inputs are wired correctly.



## Appendix (English)

## **Technical Specifications**

Audio/Signal		
Frequency Response	20 Hz – 20 kHz ( <u>+</u> 0.5 dB)	
Dynamic Range	> 109 dB (A-weighted)	
Signal-to-Noise Ratio	> 89 dB (A-weighted)	
Headroom	> 20 dB	
Mic Input EIN	$<$ -127 dBu (Rs = 150 $\Omega$ , DIN)	
Mic Input CMRR	> 80 dB	
Maximum Gain	88 dB (Mic Input to Master Output)	
Channel Separation	< -100 dB	
THD+N	Mic/Line Inputs	< 0.05%
	ST Inputs	< 0.01%
Analog Inputs	Mic Inputs	<b>Maximum:</b> -40 to -20 dBu (+4 dBu) <b>Unity:</b> -60 to -40 dBu (-16 dBu)
	Line Inputs	<b>Maximum:</b> -20 to 0 dBu (+24 dBu) <b>Unity:</b> -40 to -20 dBu (+4 dBu)
	ST Inputs	Maximum: +18 dBV Unity: 0 dBV
	Aux Inputs	Maximum: +18 dBV Unity: 0 dBV
Analog Outputs	Zone Outputs	Maximum: +24 dBu Unity: +4 dBu
Effects		
Equalization	SHH	100 Hz – 20 kHz ( <u>+</u> 18 dB)
(3-Band, Inputs)	PEQ	100 Hz – 20 kHz ( <u>+</u> 18 dB), Q: 0.1–63.0
	SHL	20 Hz – 20 kHz ( <u>+</u> 18 dB)
Equalization	High PEQ	100 Hz – 20 kHz ( <u>+</u> 18 dB), Q: 0.1–63.0
(5-Band, Outputs)	Mid-High PEQ	100 Hz – 20 kHz ( <u>+</u> 18 dB), Q: 0.1–63.0
	Mid PEQ	100 Hz – 20 kHz ( <u>+</u> 18 dB), Q: 0.1–63.0
	Mid-Low PEQ	100 Hz – 20 kHz ( <u>+</u> 18 dB), Q: 0.1–63.0
	Low PEQ	20 Hz – 20 kHz ( <u>+</u> 18 dB), Q: 0.1–63.0
Delay	Attenuation	0–1000 ms
		I.



Automatic Gain Control	Compensation	1–5
(AGC)	Response Time	100–500 ms
	Noise Gate	< -80 dBFS
Priority Attenuation (1st & 2st priorities)	Threshold	-74 to -20 dBFS
	Attenuation	-∞ to 0 dB
	Attack Time	0–300 ms
	Hold Time	1–1960 ms
	Release Time	3–4270 ms
<b>Dynamics</b> (Compressor/Limiter)	Threshold	-92 to -20 dBFS
	Ratio	1.0:1 – 20.0:1, ∞:1
	Attack Time	0–120 ms
	Release Time	3–4270 ms
	Gain	0 to +20 dB
	Knee	Hard, 1–5
Auto Fade Out/In for Source Selector	Attenuation	-30 dB
	Attack Time	100 ms
	Hold Time & Mixing	100 ms
	Release Time	100 ms
Communication		
RS-232C	Connectors: 9-pin D-Sub female connector (Remote input), 9-pin D-Sub male connector (Remote Extend output)  Speed: 9600/38400 bps  Power: +5 V via D-Sub connection	
RS-422	Connector: RJ-45 Speed: 38400 bps Terminal: 110 $\Omega$ on/off Power: +5 V via RJ-45 connection	
Ethernet	Connector: LAN port Standards: Ethernet 10/100 Base	



Other/General		
Level Indicators	Mic/Line: 1 LED (green-amber-red) per mic/line input Source: 1 LED (green-amber-red) per ST input Output: 1 LED (green-amber-red) per zone Peak Indication: -1 dB to 0 dB	
Connections	<ul> <li>(6) 3-pin Euroblock inputs (1 hot, 1 cold, 1 ground)</li> <li>(1) stereo RCA auxiliary input</li> <li>(1) stereo 1/8" (3.5 mm) auxiliary input</li> <li>(4) stereo RCA ST inputs</li> <li>(4) 5-pin Euroblock outputs (2 hot, 2 cold, 1 ground)</li> <li>(1) LAN port</li> <li>(1) RJ11/RJ14 port, RS-422</li> <li>(1) 9-pin D-Sub female connector, RS-232C</li> <li>(1) 9-pin D-Sub male connector, RS-232C</li> <li>(1) IEC power input</li> </ul>	
Operation Conditions	Temperature: 41–95°F / 5–35°C Humidity: 25–85%, non-condensing	
Power	Connection: IEC Requirement: 100–240V AC, 50/60 Hz Consumption: 30 W	
<b>Dimensions</b> (width x depth x height, with rack ears)	19.0" x 13.5" x 1.8" 482 mm x 344 mm x 46.3 mm	
Weight	8.55 lbs. 3.88 kg	

Specifications are subject to change without notice.

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