



monster mix

Reference Guide
Version 1.0

1) Introduction

Thank you for purchasing Monster MIX.

If this is the first time you install Monster MIX you should first refer to Sections 2, 3 and 4. Those chapters of the user manual will clearly walk you through the required steps of completing the installation and configuration.

Monster MIX is a plug-in devoted to automatically master final mixes. The process involve learning, analyzing and changing the dynamics and the frequency content using proprietary algorithms.

Monster MIX is available for AAX, AU (Audio Units) and VST. In AAX and AU the insertion types can be Mono and Stereo. In VST the insertion type is Stereo, but you can apply it in mono tracks as the process is Mono compatible.



VERY IMPORTANT: Always turn down the volume of your studio to a VERY LOW LEVEL the first time you use Monster MIX in a particular audio piece. Wait for a few minutes in "Scanning..." MODE with audio before you set your studio level to the normal operating state. See the section "Work Procedure" which describes the typical workflow to correctly use Monster MIX.

2) System requirements

The minimum system requirements are:

For AAX

- Mac with Intel processor with at least 8G RAM.
- OSX 10.7, OSX 10.8, OSX 10.9, OSX 10.10, OSX 10.11, OSX 10.12 or OSX 10.13
- Pro Tools 11 or Pro Tools 12

For AU

- Mac with Intel processor with at least 8G RAM.
- OSX 10.7, OSX 10.8, OSX 10.9, OSX 10.10, OSX 10.11, OSX 10.12 or OSX 10.13
- AU compatible DAW

For VST

- Mac with Intel processor with at least 8G RAM.
- OSX 10.7, OSX 10.8, OSX 10.9, OSX 10.10, OSX 10.11, OSX 10.12 or OSX 10.13
- VST compatible DAW

Additional requirements: iLok USB key (second or third generation) from PACE anti-Piracy, Inc. (www.ilok.com)

3) Installation

Please make sure that:

- You have the latest iLok License Support software installed in your system. To download or update, visit: www.ilok.com
- The Monster MIX license you have purchased has been deposited in your iLok account
- The authorization has been transferred to your iLok dongle
- The iLok is inserted into one of the USB ports on your Mac.

Download the installer package. Once downloaded and uncompressed, the package contains an installer with Monster MIX.

Execute the installer. After installation you can open Pro Tools, your AU DAW or your compatible VST application with Monster MIX (depending on the plug-in version you download).

4) What is Monster MIX

It is a system that offers an improvement of complex music sound mixes, based on the analysis, calculation, learning, comparison, adaptation and modification of more than a thousand parameters of any audio signal for final mixing applications with musical audio content.

Its objective is to improve final mixes. It's not intended for intermediate contents (individual track of voices, percussion, instruments, etc.).

The Monster MIX algorithm contains a dynamics analyzer, a frequency scanner with quadruple oversampling, a frequency band energy analyzer, a discrete band envelope analyzer, as well as historical audio learning of different genres.

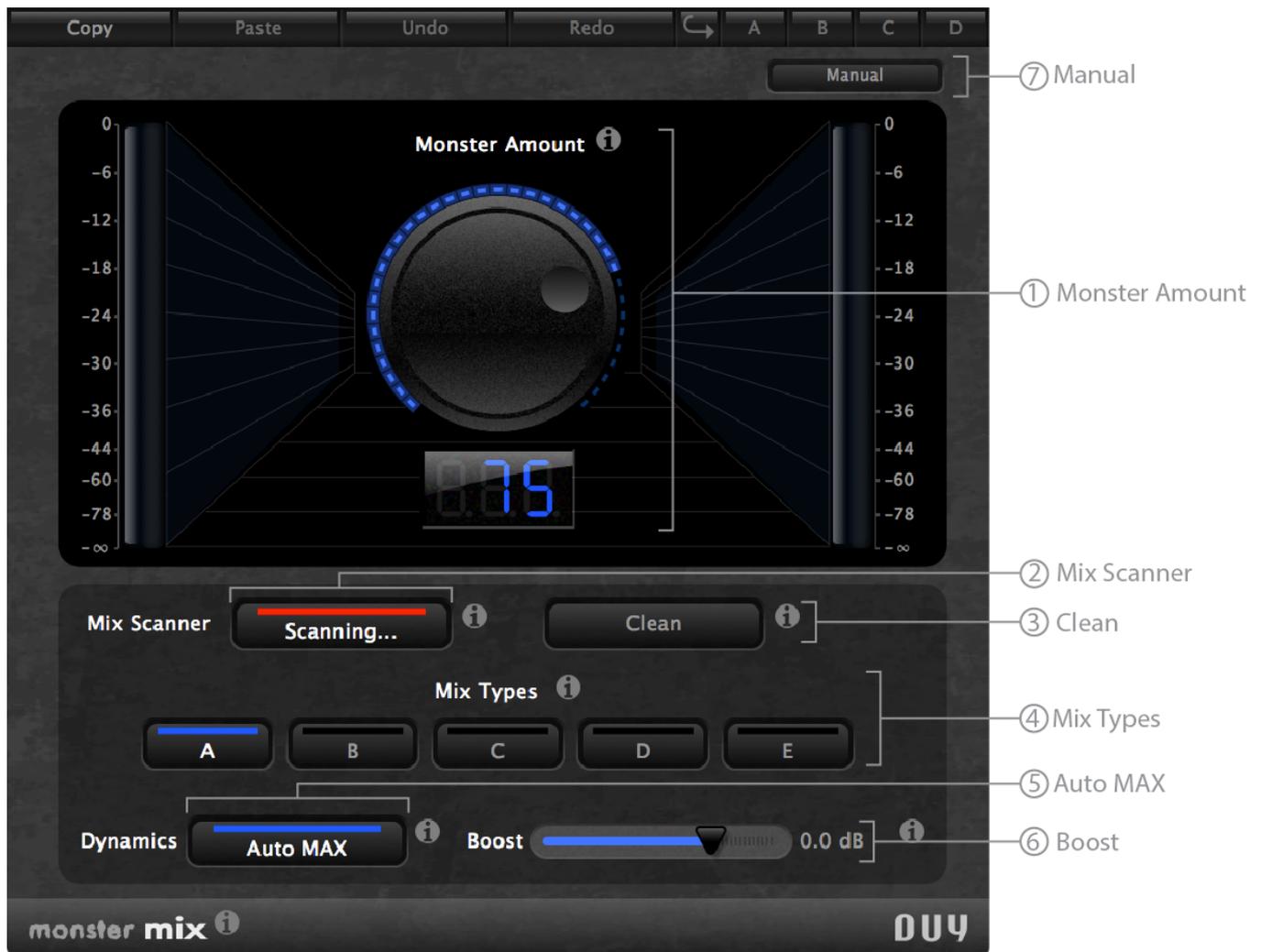
The algorithm performs an analysis of more than one thousand parameters and adapts the analyzed signal to a balance of frequencies considered pleasant, deep and complete. It also optimizes the dynamics following several criteria, according to its original dynamic content. Hence both dynamics and frequency spectrum are modified simultaneously.

The system has 5 different kinds of type mixes, whose intensity can be varied with the control of "Monster Amount".

The adaptation of variable dynamics (and/or static) can be connected or disconnected to the user's liking. In this way it will be possible to use another external signal Maximizer, such as DUY's Dream Dynamics HDa, MAX Duy or any other brand.

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5) Monster MIX User Interface



5.1) Monster Amount (0 to 100)

Determines the amount of effect applied. Its nominal value is 75. Above this value, the algorithm is applied in an extreme way. On the other hand a level close to zero will almost be a bypass. In this case the "Auto MAX" parameter will have no effect, but the "Boost" control will act.

5.2) Mix Scanner State (Scanning/Freeze)

The scanner of frequencies and dynamics can be stopped at any time. Normally it is in the "Scanning" state, but once the necessary information has been obtained it can be stopped to avoid abrupt changes in color and dynamics. It is preferable to use the Scanning state where there is higher frequency content. This way you can compare a wide range of frequencies with the 5 different types of mix.

5.3) Clean

This command erases all the information accumulated in the scanners. It is used to re-study contents from scratch or when you want to analyze a totally different frequency context.

At the time of a first insertion the analysis learning history is clean and the status of the Mix Scanner is connected.

5.4) Mix Types (A,B,C,D and E)

Monster MIX has 5 optimal frequency states. These states do not correspond to any particular style, they only represent states that historically correspond to statistically tested and qualified excellent values.

Each of these buttons contains the desirable frequency information in five different versions. It will be necessary to act on the "Monster Amount" to adjust the final effect you want.

5.5) Auto MAX (OFF/ON)

This command activates the dynamic maximization circuitry. It is assisted with a dynamic scanner and some information extracted from the original signal. If you do not want to use the maximization (because you want to use another type of technology such as "Dream Dynamics HDa or another preferred plug-in) you must leave it disabled. In addition, in this case, the "Boost "level must be below 0 dB (-6dB is a safe value).

5.6) Boost (-30dB up to +12dB)

This slider has a double life. From -30 dB to 0 dB it behaves like a simple signal leveler. From 0 dB to +12 dB, it behaves like an intelligent Booster. It's like a Maximizer, with static control, like any maximizer plug-in. This control will even act when "Auto MAX" is disconnected or the "Monster Amount" is at zero. We recommend reading the section "Treatment of Dynamics", to take better advantage of this parameter.

5.7) Manual

This button presents a new window with the user manual. In this way you can find how to handle any parameter from the same audio application that we are using.

6) Work procedure.



VERY IMPORTANT: Always turn down the volume of your studio to a VERY LOW LEVEL the first time you use Monster MIX in a particular audio piece. Wait a few minutes in "Scanning..." mode with audio before set you studio level to your normal operating state.

A good working philosophy is to know and analyze all the audio available in the mix, observing very carefully in which segments it is best heard with the Scan Scanner in the "Scanning" state. The moment we notice that we like the sound of the mix, we can turn off the scanner and leave it in the "Freeze" state.

With the analysis already done, you can change both the "Mix Types" and the "Monster Amount" controls. It is also possible to clean the database with the "Clean" command and only pass the sections that sound best or contain the most frequency and level information with the Mix Scanning in "Scanning..." state. In case of music with voices, the section of the main chorus is the most desirable.

It is also possible to use it with the scanner always in the "Scanning..." state and have a continuous adaptation. However, due to the diversity and the possible changes in both spectral density and dynamic changes, it is common to hear drops or abrupt changes in the final optimal adaptation.

Warning: In the "Scanning..." state, the amount of CPU workload used by the plug-in is much greater due to the additional work of collecting data for further analysis.

7) Treatment of Dynamics.

Monster MIX also possesses a triple processing circuitry for adaptation and control of dynamic levels. It has a variable adaptation system, a static one and a limiter without distortion to guarantee the maximum output quality.

The "Auto MAX" control activates the variable analysis and maximization circuitry. Its main task is to observe the output levels and their changes in relation to the frequency information. Under normal conditions, you will also apply a Maximization whose ceiling is set at 0 dB.

In addition to "Auto MAX" the "Boost" slider also enters the dynamic control.

This parameter has 2 action zones, from -30 dB to 0 dB, acts as a simple control leveler.

From 0 dB to + 12 dB it has a second function of Maximization of static type, that is, the Maximization determines the additional Boost in a non-intelligent way, but always, without harmonic distortion, that is, without clip effect. That is to say, like the normal level controllers we have been using for years.

Finally, there is a limiter at the end of the adaptive system, to ensure that we never exceed 0 dB.

This triple scheme of dynamic management allows several scenarios:

7.1) Variable dynamic adaptation with continuous analysis: This version is achieved with the "Auto MAX" button in ON and the "Boost" slider in 0 dB.

This is the default mode of Monster MIX. In this case the analysis will determine the amount of dynamics maximization taking into account the analysis of the dynamics coming from the original signal and part of the frequency information of the scanner system.

7.2) Static Maximization: This mode corresponds exactly to the maximizing mode of all current level maximization plug-ins in the market. This case is achieved by disconnecting the "Auto MAX" and using the amount of "Boost" that is desired to Maximize (> 0 dB to +12 dB). The slider should be above 0 dB. The amount of maximization will exactly be the value above 0 dB. Although this value is above 0 dB, there will never be a change in the shape of the cutting type of scissors or clip, because the circuit has laws of maximization without distortion due to overflow. Of course, like any maximizer, it is possible to cause distortion by over compression, which is also very undesirable.

IMPORTANT: it is not recommended to have "Auto MAX" and "Boost" connected above 0 dBs at the same time. This would cause too much maximization effect. However, if the signal is very, very weak, the 2 methods could work at the same time.

7.2) No Maxification: this is the case in which you want to use your favorite maximizer plugin.

To achieve this case it is important that the maximizer is inserted after Monster MIX. To avoid Maximization inside Monster MIX, the "Auto MAX" button must be disconnected and the "Boost" value must be placed around -6 dB or slightly less. In this way Maxification work is left to the next plugin with the least dynamic change by Monster MIX.

8) Troubleshooting.

8.1) You hear no expected high and low levels (pumping effect) and the Mix Scanner is in "Scanning..." mode. When the mix has big dynamics changes and/or very low level passages or silences with few instruments, certain discontinuities are generated and the "pumping" effect appears. In this case it is mandatory to use the procedure described in point 6. Analyze the parts with higher level and frequency content, with the Mix Scanner in "Scanning..." state and then disconnect it when we have enough information in the state of "Freeze".

8.2) You hear no expected high and low levels (pumping effect) and the Mix Scanner is in "Freeze" mode. It is very possible that we are over Maximizing the mix. In this case it is recommended to lower the "Boost" level until you stop hearing the "pumping".

8.3) The mix sound "over-equalized". No doubt in this case the value of "Monster Amount" is far above what is desired. It is recommended to decrease it.

It's good to have music references that we like or with which we want to compare our final mix.

8.4) The mix is distorted or always the LEDs are very high. This is the typical case of over-maximizing the mix. The distortion by elimination of the "breath" of natural dynamics is very common since the Level Maximizers were invented in the post-CD era. The solution is to disconnect the "Auto MAX" and maybe use a small amount of Boost, or leave it at 0dB. If the user wants to try another type of Maximization, it is recommended to follow the example in point 7.2.

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