M-16DX 16-Channel Digital Mixer

Using the M-16DX's Finalize Tools

M16DXWS18

About the Workshop Booklets

The EDIROL M-16DX 16-Channel Digital Mixer delivers the power of digital mixing to musicians at an incredibly affordable price. This crystal-clear 24-bit digital mixer supports sample rates up to 96 kHz, and it's extremely flexible, with a wide range of analog and digital inputs and outputs, and effects. The M-16DX's USB connectivity makes it an ideal partner for a computer-based digital audio workstation, and features such its pro EQ and the innovative Room Acoustic Control make it an excellent live mixer as well.

Each M-16DX Workshop Series booklet focuses on one M-16DX topic, and is intended as a companion to the *M-16DX Owner's Manual*.

The M-16DX Workshop booklets require M-16DX O.S. Version 2.00 or higher. You can download the latest O.S. for free from *www.RolandUS.com/EDIROL*.

About This Booklet

As a last step in making your main stereo M-16DX mix sound as balanced, even, and tight as possible, the M-16DX contains a suite of Finalize tools that can be applied to the entire mix to create a polished, mastered sound. This booklet explains how to use the M-16DX Finalize tools.

Understanding the Symbols in This Booklet

Throughout this booklet, you'll come across information that deserves special attention—that's the reason it's labeled with one of the following symbols.

A note is something that adds information about the topic at hand.

A tip offers suggestions for using the feature being discussed.

Warnings contain important information that can help you avoid possible damage to your equipment, your data, or yourself.

Hot Links

Each Workshop booklet is meant to be read in order from beginning to end. However, if we mention an upcoming section—and you see this arrow—you can click the arrow to jump there immediately.

What the Finalize Tools Are, and What They Do

You can use any of the six different Finalize effects when the M-16DX is operating at its 44.1 kHz and 48.0 kHz sampling rates. Each of these effects offers some combination of the following tools:

- *Multi-band compressor*—A compressor brings down the level of any signal that exceeds a pre-determined volume threshold. This allows you to make the entire signal louder since the compressor takes care of any level peaks that would otherwise be too loud. It also has the effect of tightening-up the sound. A multi-band compressor can operate on separate specific frequency ranges within a signal.
- *Enhancer*—An enhancer is essentially an EQ optimized for adding clarity to a signal, in this case the entire mix.

We'll explain the available settings, or "parameters," in the Finalize effects a bit later.

You can use a Finalize effect on the

- *main mix*—when you want to polish up the main mix at a live venue.
- *Control Room/Headphones*—when you'd like to optimize your listening mix without affecting the actual MAIN OUT or DIGITAL OUT signal.

When the M-16DX is connected to a computer via USB, the Finalize effect is de-activated.

Using the Finalize Tools

To activate, select, and edit a Finalize effect:

1 Press the FINALIZE button so it lights—the FINALIZE screen appears.

2 Press CURSOR BWD, if necessary, to highlight the current Finalize effect's name, as shown above.

3 Use the - and/or + VALUE buttons to select the desired Finalize effect.

4 Use the CURSOR buttons to select any parameter you'd like to edit.

5 Use the - and/or + VALUE buttons to set the selected parameters as desired.

6 To turn off the Finalize effect, press the FINALIZE button to un-light it.

The M-16DX remembers your Finalize settings even when it's powered off, so they'll remain in place until you change them.

You can store Finalize settings within scenes. This allows you to hold onto favorite Finalize setups for later re-use. To learn about scenes, see the *Using Scenes on the M-16DX* Workshop booklet.

The Finalize Parameters Explained

Natural

This effect offers a pair of linked low- and high-band compressors and an enhancer.

Parameter:	*This parameter*
CROSS range: 10.0-14k	sets the frequency range assigned to the low- and high-band compressors by establishing the dividing line between them.
COMPRESS range: 0-100	sets the amount of compression applied by lowering the level threshold above which signals are compressed, and at the same time raising the overall level of the signal as you increase the parameter's value.
CLARITY range: 0-100	sets the amount of enhancer applied to the signal.

FAT Comp

The effect offers low-band and a hi-band compressors with preset frequency ranges.

Parameter:	*What It Does:*
L COMPRESS range: 0-100	sets the amount of low-end compression applied by lowering the level threshold above which signals are compressed, and at the same time raising the overall level of the signal as you increase the parameter's value.
H COMPRESS range: 0-100	sets the amount of high-end compression applied by lowering the level threshold above which signals are compressed, and at the same time raising the overall level of the signal as you increase the parameter's value.

Final 1-4

This effect offers editable low-and high-band compressors and an enhancer for users who want more control over finalizing. With their default settings, each of the Final 1-4 effects achieves its own result:

- *Final 1*—sets a balance between the low and high frequency ranges.
- *Final 2*—boosts the bottom of the mix.
- *Final 3*—clarifies the sound of the mix.
- *Final 4*—evens-out level fluctuations in the mix.

Parameter:	*What It Does:*
CROSS range: 10.0-14k	sets the frequency range assigned to the low- and high-band compressors by establishing the dividing line between them.
ThrsL range: -50-0	sets the threshold above which low-band signals are compressed.
GainL range: -50-24	sets the amount by which the level of the lower band is boost or cut.
ThrsH range: -50-0	sets the threshold above which high-band signals are compressed.
GainH range: -50-24	sets the amount by which the level of the higher band is boost or cut.
Clarity range: 0-100	sets the amount of enhancer applied to the signal.

The End

We hope you've found this workshop helpful. You'll find other M-16DX Workshop booklets available for downloading at *www.RolandUS.com/EDIROL.*