

Mixing Basics

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Gain

Turn it up until it's loud enough, but not louder.

If loading from a template, the gains are generally set at a sane level. Some inputs with sources that change week to week (different vocalists, different guitar rigs, etc...) will more often need gain adjustment, and more consistent sources (drums, keys) will less often need adjustment.

When setting gain, place the fader around unity (0db) and adjust gain until the signal is at a healthy level in the room.

Try to avoid touching the purple gain after it is initially set, unless absolutely necessary, as it will affect everything else associated with that input. (Will change the signal level for FOH, Broadcast, Livemix-In-Ears, Recording)

Compression

Compression will take the louder parts of a signal and make them quieter in a controlled way.

You have 5 controls at your disposal in most compressors as follows:

Threshold: The most important control. Will set the volume threshold that the compressor will start to consider "loud". Anything louder than this threshold will be turned down by the compressor.

Ratio: The second most important control. Will set how much a signal over the threshold gets turned down. Is expressed in ratios of X:1 (eg. 2:1, 4:1, 10:1, etc...) The larger the leading number, the more the signal gets compressed when "loud".

Attack: Sets how quickly the compressor turns down the "loud" portions. Is usually expressed in milliseconds (1000th of a second) and is usually in the range of 1-20ish.

Release: Sets how quickly the compressor brings the signal back up after it is no longer "loud". Usually expressed as either milliseconds, or seconds, commonly at 100ms.

Makeup Gain: Since compressors will make the loud parts quiet, the average signal level after compression will always be quieter than before compression. The makeup gain lets you turn up the compressed signal to match the pre-compressed level.

The Compressor Is Like Your Mother

THRESHOLD: The level she asks you to turn the music down.

RATIO: How much you turn down the volume after she shouts at you.

ATTACK: How fast you react.

RELEASE: How fast you turn the volume back up as soon as she closes the door.

Gates

Spice Rack

Mustard

Stereo vs Mono inputs

Changing input types is done through the channel input menu, by tapping on a channels preamp icon. There will be boxes for stereo and mono at the top of the popup. Select the type desired.

What is a mono? Monophonic audio is audio that comes from a single source. Think of a single bluetooth speaker in the middle of a room. In terms of mixing consoles, a mono input channel will have a single input source (single mic, di, whatever).

What is a stereo? Stereophonic audio is audio that comes from two different sources. Think of watching a movie or show on a tv where sound can come from either side of the tv. (with clever timing and level adjustments, the sound can appear to come from anywhere between those two speakers as well). In terms of mixing consoles, a stereo input channel will have two input sources (usually related to each other, eg. left and right keyboard).

On the DiGiCo, stereo inputs will mostly work the same as mono inputs, for our use cases, but there are couple minor differences:

Panning works slightly differently: Mono inputs will allow you to pan both inputs wherever one wants in the stereo spectrum, whereas stereo inputs will only allow you to adjust the level of each side with pan.

Stereo only needs one fader: Win!

Note for advanced users: The channel will no longer have an alternate input: if we need to have an alt input, this source will need to be on two linked mono inputs.

EQ

Basics by instrument