

# Welcome!

Hello and welcome to the manual for the Level-DeviL designed by Simon Ayton @ De-Vice'.

Gain reduction is one of the most widely used sound shaping tools available.

Chances are, everything you have heard on CD, record and tape from spoken word to orchestral music broadcasts (although less common) have been treated with some form of compression to reduce dramatic changes in volume

Analog style, vintage compressors are still regarded highly today because of the way they effect the audio signal and although their technical specifications may fall short of their digital counterparts, they give desirable warmth and smoothness to recordings.

After careful analysis and exhaustive listening tests of analog style gain reduction techniques, the Level-DeviL is born!

Modelled on the classic levelling amplifier/compressors of the 50's and 60's , the Level-DeviL shares in their smooth sound characteristics and simplicity of function.

The 'sidechain feedback' design combined with careful sidechain filtering help give the Level-DeviL it's unique sound. It works like this:

Signal comes in, is analysed then 'fed back to the detection circuit for reanalyses

This allows the compressor to 'see' what it has done and adjust it's settings constantly in response to the sound being processed.

All you have to do is to set the required amount of gain reduction (reduce control) and the output level...done!

All this results in the smoothing of the signal giving it clarity and presence in the mix.

As both a mono and stereo device, the Level-DeviL can be used standalone in the project window or can be inserted into the mixers. Full MIDI control is possible as well as preset storage.

Have fun, be sure to experiment, and check out the other great plug-ins available from [www.deviceplug-ins.com](http://www.deviceplug-ins.com)

Simon Ayton  
De-Vice'

# Level-DeviL

## User's Manual



The analog style compressor for Pulsar/SCOPE  
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Version 1.0



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# Level-DeviL Surface



**Click any area!**



# Reduce Section



Reduce is like the threshold setting on a standard compressor

The Reduce control adjusts the amount of gain reduction applied to the signal.

Turning the 'Reduce' control 'clockwise' increases gain reduction, therefore decreasing the 'Dynamic Range' and smoothing the signal.

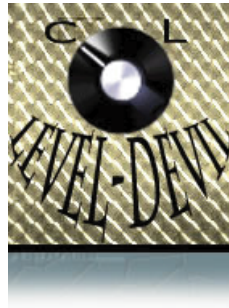
At a setting of 0dB, no reduction will occur.

Watch the reduce meter to see the amount of reduction taking place.

For a gentle compression, adjust the reduce control so that only the loudest peaks in the signal make the meter react.



# C/L control



Choose from Compression and semi-Limiting

The 'C' mode uses a ratio setting of approximately 3:1 compared to the 'L' modes 20:1 factor.

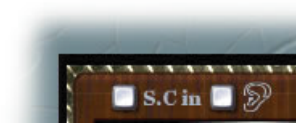
Both of these modes use the "RMS" (level averaging) and 'soft knee' styles found in the classic designs.

You should find the 'C' mode the smoothest for most signals but The 'L' mode can help with extremely dynamic sounds.

Click the control to change the setting.



# Sidechain and Listen functions



Sidechain lets you control which frequencies or part of the signal are compressed.

The Level-DeviL internally, uses the 'Sidechain-Feedback' method of level detection where the signal arriving at the InL+InR connectors of the compressor runs through the detection circuit and is fed back to the sidechain inputs afterwards.

This allows the compressor to effectively 'see' what it has done and respond accordingly.

This is a much more 'active' style of detection which means the usual manual 'attack' and 'release' controls are no longer as relevant making it simpler to use and giving a more natural and smooth sound.

Clicking the sidechain button disconnects the normal internal circuit of the Level-DeviL and allows any signal at the sidechain inputs to influence how the Level-DeviL's detection circuit responds. This feature allows you to reduce the 'ess' in speech and vocal recordings (de-essing), perform 'ducking' and to correct other problem areas such as an in-consistent bass guitar track without over-compressing the other frequencies in the mix.

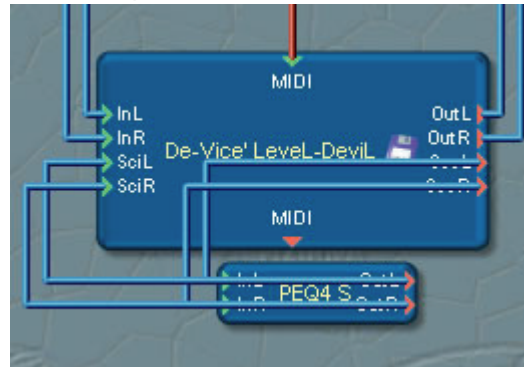
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Note that when pressing 'S.C in' without anything connected to the sidechain inputs, you will see no gain reduction on the meter because the compression circuit has nothing to analyse!  
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Pressing the listen button lets you hear the sidechain input signal.  
(either it's internal feedback-sensing circuit or an external 'EQ' connected to the sidechain inputs)  
This is very useful as you can hear exactly what the compressor is hearing.






# Using the Sidechain



1.

Connect an equaliser between the sidechain inputs and outputs of the Level-DeviL as above. (NOTE: the sidechain outs on the level-DeviL are 'post' (after) the detection circuit. This gives a very different response than just connecting the InL + InR to the SciL + SciR as with standard compressor designs. This is a special feature of the Level-DeviL)


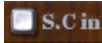
2.

Press the  button. What you are now hearing is the output of the EQ

3.

Adjust the EQ so that the frequency you want to reduce is louder.  
(This will make the compressor focus on this frequency.)

4.

Unclick the  button and press the  button to insert the EQ into the sidechain path of the compressor.

5.

Continue adjusting the EQ to fine tune the compression. Use the bypass button on the Level-DeviL to hear the difference the compression is making.

Remember, clever use of the sidechain is the key to successful compression!

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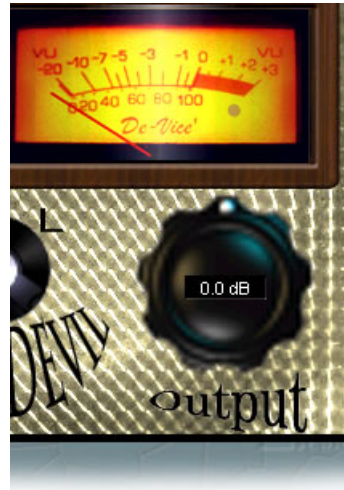
To alter the response characteristic of the compressor, try delaying the input to the sidechain (or even compressor InL+InR!) by time-shifting them via. delay or by moving the copied track in your audio sequencer before feeding it to the sidechain of the Level-DeviL. This causes the Level-DeviL to delay it's response to the signal or to cause a 'Look Ahead' style compressor. Values of 5-200 msec are good starting points.

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# Output Section



## Output level after compression

Compression effects the dynamics of sounds which effectively makes them quieter.

Here you can boost the output to make up for this loss in level.

24dB of output gain is provided. The peak level is shown when over 0dB by the overload light at the bottom right of the VU meter.

The 0dB point on the meter is actually 3dB below digital clip (giving 3dB of headroom) so occasional flashing of the light is OK.

The best way to work is to adjust the output so that when switching in the 'bypass' button, you hear no change in level.

The aim of a compressor is to reduce the 'dynamic range' of a sound so that is more 'intelligible' not to increase or reduce it's overall level.

You should adjust the output after compression to match the 'bypassed' level.



# Utility Buttons



Midi channel, presets, stereo/mono, bypass, device on-top, close surface.



# Boring legal stuff

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