

PSP McQ



Operation Manual

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PSP McQ



PSP McQ captures the sonic character and functionality of various classic console equalizers such as the versatile MCI console EQs. However, while PSP McQ was inspired by these analog classics, we added several modern features such as adjustable high pass and low pass filters, steepness (resonance) control for the shelving filters, optional bell filters for the low and high bands, and three nominal Q values for the midrange filters. We packed the PSP McQ full of musical features, such as gain following Q factors for the midrange bell type filters. By this, we mean that the Q factor of these filters gradually increases along with increases in boost or attenuation. The PSP McQ is especially suited for deep track tweaking in order to get a desired sound for a track, or to get great track separation in the mix.

PSP McQ also includes our unique second generation SAT(uration) option in the output section. This both protects against digital clipping in software or hardware following the plug-in, and adds a smooth, overdriven sound to hard-driven signals. The SATuration algorithm is located after output level control in PSP McQ's internal chain and its ceiling reference level is setup a fraction of dB below 0dBFS.

PSP McQ Controls

PSP McQ has a very straightforward GUI, reflecting the band-split layout of console equalizers. As such, it's controls should be relatively easy to understand.

EQ: Click this switch to engage or disengage all the filters. Note that this does not bypass the plug-in, so the output level and SAT features are still operational.

Output LED: This LED will flash when 0dBFS is exceeded on output. Don't worry, a flashing LED doesn't indicate any internal distortion. Once triggered, the LED will stay dark red until reset. Click the LED to reset it. Note that when SAT is engaged, you will never exceed 0dBFS on the output.

OUTPUT: This knob adjusts the global output level. The output level is variable between -20 dB (full counter-clockwise) and +20 dB (full clockwise).

L – R Switch: Use this switch to assign the filters to only the left channel (L), both channels (center position), or only the right channel (R).

PHASE: Click this button to switch the input phase into reversed or normal mode.

SAT: This turns on or off the Saturation algorithm described in the overview.

LPF (Low Pass Filter):

Switch: Click this switch to engage or disengage the low pass filter

Knob: The knob lets you adjust the low pass filter frequency. The LPF has a range from 12 Hz (full counter-clockwise) to 2 kHz (full clockwise).

HPF (High Pass Filter):

Switch: Click this switch to engage or disengage the high pass filter

Knob: The knob lets you adjust the high pass filter frequency. The HPF has a range from 600 Hz (full counter-clockwise) to 28 kHz (full clockwise).

LOW (Low Filter):

Switch: Use this switch to select the “I” mode for +-10dB range, “II” mode for +-20dB range or to disengage the filter in the “0” position.

kHz Knob: Click and drag the knob to adjust the frequency of the low filter. The low filter has a range from 20 Hz (full counter-clockwise) to 500 Hz (full clockwise)

dB Knob: Use the knob to adjust the boost or attenuation of the low frequency filter between 10 dB (full counter-clockwise) and +10 dB (full clockwise) when the filter is in “I” mode or double the range in “II” mode.

Shape Switch: Use this switch to select the characteristics of the shelf for the low filter. The low (shelf) position offers a smooth and classic shelf sound. The middle position results in steep shelf filtering and a more selective, punchier sound. The high (bell) position switches this filter to a wide bell mode.

MID1 (Midrange Filter 1):

Switch: Use this switch to select the “+” mode for boost operation, “-” mode for attenuation or to disengage the filter in the “0” position.

kHz Knob: Click and drag this knob to adjust the frequency of the MID1 filter. This filter has a range from .07 kHz (full counter-clockwise) to 7.2 kHz (full clockwise)

dB Knob: Use the knob to adjust the boost or attenuation of the middle frequency filter up to 20 dB.

Q Width Switch: Use this switch to select the nominal Q factor value for the low mid filter. The nominal Q value is reached approximately at maximum boost or attenuation. The values are 0.7, 2, and 4.

MID2 (Midrange Filter 2):

Switch: Use this switch to select the “+” mode for boost operation, “-” mode for attenuation or to disengage the filter in the “0” position.

kHz Knob: Click and drag the knob to adjust the frequency of the MID2 filter. This filter has a range from .1 kHz (full counter-clockwise) to 16 kHz (full clockwise)

dB Knob: Use the knob to adjust the boost or attenuation of the middle frequency filter up to 20 dB.

Q Width Switch: Use this switch to select the nominal Q factor value for the low mid filter. The nominal Q value is reached approximately at maximum boost or attenuation. The values are 0.7, 2, and 4.

HIGH (HIGH Filter):

Switch: Use this switch to select the “I” mode for +-10dB range, “II” mode for +-20dB range or to disengage the filter in the “0” position.

kHz Knob: Click and drag the knob to adjust the frequency of the high filter. The high filter has a range from 3 kHz (full counter-clockwise) to 25 kHz (full clockwise)

dB Knob: Use the knob to adjust the boost or attenuation of the low frequency filter between 10 dB (full counter-clockwise) and +10 dB (full clockwise) when the filter is in “I” mode or double the range in “II” mode.

Shape Switch: Use this switch to select the characteristics of the shelf for the low filter. The low (shelf) position offers a smooth and classic shelf sound. The middle position results in steep shelf filtering and a more selective, punchier sound. The high (bell) position switches this filter to a wide bell mode.

Using presets

PSP McQ is provided with factory sets of presets.

The main aim of included presets is to show customers the features of the plug-in and help to learn the controls usage. In addition, the presets can be used as a starting point for further adjustments or as quick fix presets.

The PSP McQ presets can be accessed from the PSPaudioware standard PRESET bar at the bottom of the plug-in interface. Here you can select from among the factory presets, and load and save individual, as well as banks of presets. There are three sections to this bar, the PRESET section, the Preset window, and the BANK section.

BANK SECTION

Click the green arrow icon to load a bank from a disk.

Click the red arrow icon to save a bank.

Double click the BANK label to permanently store the default preset bank.

Press Command (Mac) or Control (PC) and double click to restore the factory default bank.

PRESET SECTION

Click the green arrow icon to load a preset.

Click the red arrow icon to save a preset.

Double click the PRESET label to permanently store the default preset.

Press Command (Mac) or Control (PC) and double click to restore the factory default preset.

PRESET EDIT BOX

Click the menu button to the right of the preset edit box to see and the popup menu of all the presets in the currently loaded preset bank and to choose a preset from the list.

Click the name of the preset to rename it.

PRESET SELECTION

Click on the bright left arrow to switch to a previous preset on the list.

Click on the bright right arrow to switch to a next preset on the list..

MEMO A and B

Both A and B are permanently stored on your disk. This allows you to compare alternative settings or share a preset between various instances of the plug-in in the same project or even between various projects.

Click the green arrow icon to load a preset from memo A or B.

Click the red arrow icon to save a preset to memo A or B.

?

Click on the question mark whenever you need to open the operation manual.

Technical Specifications

Processing

- FAT double sampling. FAT is automatically switched on for low (below 50kHz) sample rates, and off for higher sample rates. This ensures the most accurate processing independent of the sample rate.
- 64-bit double precision floating point computations for ultra low accumulative errors in the filters.
- An optional second generation SAT(uration) option in the output of the plug-in. This both protects against digital clipping in software or hardware following the plug-in, and adds a smooth, overdriven sound to hard-driven signals. The SATuration algorithm is located after output level control in a plug-in's internal chain and its ceiling reference level is setup a fraction of dB below 0dBFS.
- All actual parameters like gain, frequency or Q may differ from displayed values which is a typical feature of analog equalizers.
- 32 and 64 bit floating point audio streams supported
- Sample rates up to 192kHz supported.

Plug-in Latency

In order to achieve the highest quality results, PSP McQ requires a small buffer containing a number of samples in order to process your audio material properly. The amount of samples needed was kept purposefully small so that these equalizers could be used in tracking—in all cases the internal latency is around 1ms (one millisecond). The final latency may vary a bit based on sample rate.

That said, most modern DAWs include plug-in delay compensation, which eliminates the effect of the delay incurred by PSP plug-ins on playback. PSP plug-ins fully support the latency compensation of all host DAWs (meaning, accurately reports its samples of delay to the host). Note that some host DAWs have limitations regarding its delay compensation, so be sure to refer to your DAW's user guide for more information. For your convenience the latency of the plug-in is reported at its bottom bar in samples and milliseconds.

Limitations of the demo version

The demo will operate without any limitations for 14 days from its initial installation. During the demo period you will just need to click on the GUI to engage processing once the plug-in is inserted. After the end of evaluation time you would not be able use the plug-in without authorization.

Authorization

Each PSP plug-in has to be authorized using an automatic authorization application or a batch authorizer downloaded from user's account page on our site.

The About Screen

Each PSP plug-in offers an About window. This screen contains your authorization details, as well as the version number of the plug-in. To access each plug-in's about box, click on the name of the plug-in. To return to the controls view, click the name of the plug-in again (or anywhere in the about screen).

Minimum System Requirements

PC

VST

- Windows x32 or x64 (XP Service Pack 2, Vista or 7)
- VST 2.4 compatible application

RTAS

- Windows x32 or x64 (XP Service Pack 2, Vista or 7)
- ProTools LE 8.0.0 or ProTools TDM 8.0.0 (or later)

AAX

- Windows x32 or x64 (XP Service Pack 2, Vista or 7)
- Pro Tools 10 or Pro Tools HD 10

Mac

AudioUnit

- Mac OSX 10.5 or later
- 32 or 64-bit host application capable of running AudioUnit plug-ins with Cocoa view

VST

- Mac OSX 10.5 or later
- 32 or 64-bit VST 2.4 compatible host application

RTAS

- Mac OSX 10.5 or later
- ProTools LE 8.0.0 or ProTools TDM 8.0.0 (or later)

AAX

- Mac OSX 10.7 or later
- Pro Tools 10 or Pro Tools HD 10

Please keep in mind that these CPU and RAM specifications are *minimum* requirements. For the best performance, you will want a faster CPU and as much RAM as possible!

Support

If you have any questions about any of our plug-ins, please visit our website <http://www.PSPAudioware.com> where you can find the latest product information, free software updates, online support forum and answers to the most frequently asked questions.

You can also contact us by e-mail: support@PSPAudioware.com. We will gladly answer all of your questions. As a rule we respond within 24 hours.

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