# **ABLETON RACKS**

# MIX MASTER PROCESS DAWCENTRIX 02

**USER GUIDE** 

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#### Foreword

Having been an avid user of Ableton Live since version 4, I have amassed a healthy number of self-made Audio Effects Racks and Instrument Racks, some good, some not so good. This stockpile can be attributed to the fact that there is something very compelling and immediate about the process of being able to fashion custom instruments and effects quickly and efficiently in Live. Everything from the macros with programmable ranges, the ability to nest racks within racks, to the uncluttered 2D GUI is pure genius.

To date every 5Pin Media product incorporating the Live format has either Instrument Racks and/or a few effects racks and very often a "Jam Session" Project for sparking ideas. Most have come about as a result of testing the Instrument Racks from a compositional sense - checking they work with drum loops, other elements and still work well in a mix. As time and more packs have marched on, I realised that this stockpile needed sorting and consolidating to improve work flow. That exercise has now commenced and whilst far from complete, has in part resulted in the Mix Master Process collection.

Mix Master Process is split into two main parts, namely Mixing & Mastering Racks and Processing Racks. Both parts are supported by user guides describing the functionality of each and every macro with the occasional tip here and there.

I must confess that I was pleasantly surprised by the quality of the results that can be achieved by using Live's bundled effects alone. All too often we reach for that shiny new VST that we feel we need to use based on the hefty price tag, which in no uncertain part, has convinced us that it is undoubtedly the best. In my humble opinion, "The whole is greater than the sum of its parts" applies to Live's racks and makes making music both educational and fun.

On behalf of 5Pin Media I would like to thank you for purchasing this product and trust you will find it of value. Be sure to explore the included Live Projects for examples of the racks in action.

Love Peace and Music.

Mark 5Pin Media

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# 10 Useful Tips:

- 1. When comparing any changes to the signal, do so at constant volume. Don't be tricked by the louder sounds better syndrome.
- 2. Often it is better to cut rather than boost when applying EQ, especially to a full mix or when mastering.
- 3. Approach mastering with a gentle touch don't destroy a good mix in the pursuit of more loudness that is what the volume control on your iPod or HiFi is designed for.
- 4. Take regular breaks to rest your ears when mixing & mastering.
- 5. Repeatedly reference your mix/master with a commercial one you enjoy for perspective.
- 6. Leave plenty headroom on each channel such that the master channel level stays out of the red.
- 7. Don't mix with a Limiter on the Master Buss or try to master and mix at the same time.
- 8. Leave at least 6dB of headroom when you bounce your pre-master and do so at 24bit or 32bit word depth.
- 9. Take a day or night's break before mastering.
- 10. If you aren't familiar with mid/side mixing and mastering then please learn more here... http://www.brainworx-music.de/en/whatisms

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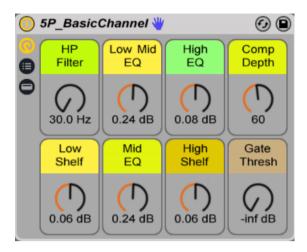
# MIX & MASTER RACKS

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# **BASIC CHANNEL**

# A general purpose mix channel



#### **HP Filter:**

Sets the frequency of a high pass filter for removing unwanted low frequencies.

#### Low Mid EQ:

Cut or boost frequencies in the low mid 300Hz region with a medium Q (band width) EQ.

#### High EQ:

Cut or boost frequencies in the high 6kHz region with a medium Q (band width) EQ.

#### Low Shelf:

Applies a gentle low shelf EQ with cut or boost centred on 600Hz.

#### Mid EQ:

Cut or boost frequencies in the mid 1.5kHz region with a medium Q (band width) EQ.

#### High Shelf:

Applies a gentle high shelf EQ with cut or boost centred on 2kHz.

#### Comp Depth:

Adjusts the depth of compression by adjusting the compression threshold and compensates the output level at the same time.

#### Gate Thresh:

Sets the threshold at which the at which the gate effect triggers. Use to remove unwanted background noise from the signal.

# **BASS CHANNEL**

#### A bass mix channel



#### Level Out:

Adjusts the output signal level.

#### Phase:

Inverts the phase of the output signal (both L&R channels). Useful when there is cancellation of low frequencies between kick and bass.

#### Stereo Width:

Adjusts the stereo width from mono "0%" to full "100%". Use to tame overly wide basses that clash with other stereo elements.

#### Comp Thresh:

Adjusts the signal level threshold at which compression is applied.

#### Comp Dry/Wet:

Adjusts the amount of compressor signal versus dry signal for New York style compression.

#### Saturator Drive:

Adjusts the signal level applied to the saturator. Higher levels result in more saturation which can be helpful to generate harmonics for more presence.

#### Sat Dry/Wet:

Adjusts the amount of saturated signal versus dry signal.

#### 80Hz EQ:

Medium slope cut and boost EQ centred at 80Hz for balancing the low end. Cut if the bottom end is too boomy or is clashing with the kick.

#### 800Hz EQ:

Medium slope cut and boost EQ centred at 800Hz for balancing the pluck. Increase if the bass needs more presence in the mix.

#### 3kHz EQ:

Medium slope cut and boost EQ centred at 3kHz for balancing the pop. Increase if the bass needs more transient punch.

#### EO On:

Turns the EQ on or off. Sometimes it is better to bypass the EQ altogether if not required.

# **BUSS COMPRESSOR**

# A simple goto compressor for buss signal compression



#### Threshold:

Adjusts the signal level threshold at which compression is applied.

#### Makeup:

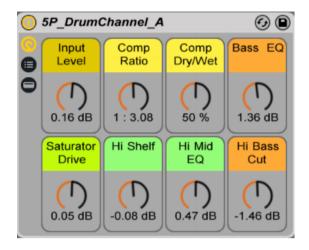
Adjusts the compressor output level to make up for the compressor gain reduction.

#### Dry/Wet:

Dials in the amount of compressor signal versus dry signal for New York style compression.

# DRUM CHANNEL A

# Mix tool for shaping the drum buss/channel



#### Input Level:

Adjusts the signal level applied to the multiband compressor.

#### Comp Ratio:

Adjusts the compression slope. Higher ratios result in more gain reduction (compression).

#### Comp Dry/Wet:

Dials in the amount of compressor signal versus dry signal for New York style compression.

#### Bass EQ:

Adjusts the amount of cut or boost in the 90Hz signal region.

#### Hi Bass Cut:

Applies a gentle cut in the high bass region centred on 160Hz to focus the bass.

#### Saturator Drive:

Adjusts the signal level applied to the saturator. Higher levels result in more saturation.

#### Hi Shelf:

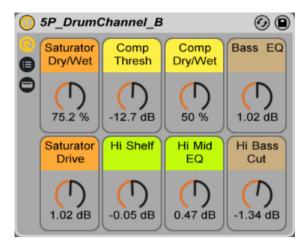
A low Q (wide band) musical shelf EQ for the high frequencies that tilts gently up or down.

#### Hi Mid EO:

Gentle cut and boost EQ for the high mid band frequencies.

# DRUM CHANNEL B

# Mix tool for shaping the drum buss/channel



#### Saturator Dry/Wet:

Adjusts the amount of saturator signal versus dry signal.

#### Saturator Drive:

Adjusts the signal level applied to the saturator. Higher levels result in more saturation.

#### Comp Thresh:

Adjusts the signal level threshold at which compression is applied.

#### Comp Dry/Wet:

Dials in the amount of compressor signal versus dry signal for New York style compression.

#### Bass EO:

Adjusts the amount of cut or boost in the 90Hz signal region.

#### Hi Bass Cut:

Applies a gentle cut in the high bass region centred on 160Hz to focus the bass.

#### Hi Shelf:

A low Q (wide band) musical shelf EQ for the high frequencies that tilts gently up or down.

#### Hi Mid EQ:

Gentle cut and boost EQ for the high mid band frequencies.

# DRUM CHANNEL C

# Mix tool for shaping the drum buss/channel



#### Input Level:

Adjusts the signal level applied to the multiband compressor.

#### Comp Dry/Wet:

Dials in the amount of compressor signal versus dry signal for New York style compression.

#### Soft Knee:

Applies more gradual compression at the threshold.

#### Output:

Trims the channel output level.

#### Saturator Drive:

Adjusts the signal level applied to the saturator. Higher levels result in more saturation.

#### EQ Freq:

Sweeps the centre frequency of a mid to high cut boost low Q (wide band) EQ.

#### EQ Cut/Gain:

Gentle cut and boost for the swept low Q EQ.

#### Cleaner Bass:

Applies a gentle cut in the high bass region centred on 160Hz to focus the bass.

# **DYNAMIC EQ**

# Cuts or boosts frequencies dynamically



#### EQ Level:

Adjusts the level of the frequencies subtracted or added to the signal.

#### Gate Thresh:

Sets the threshold at which the at which the gate triggers letting more or less signal pass. Set "Solo Filter" on to adjust.

#### Transient Amt:

Adjusts the attack time for the gate shaping the transient. Higher values smooth the transient attack.

#### Gate Release:

Adjusts the release time of the gate thereby shaping the signal envelope.

#### Filter Freg:

Tunes the bandpass filter for which frequencies will be boosted or attenuated dynamically set by the gate threshold.

#### Solo Filter:

Solos the filter signal when set to greater than "63". Use this to set the gate threshold and any other adjustments being made to the filter signal without the dry signal present.

#### Mute Filter

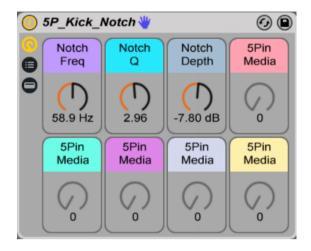
Mutes the filter signal when set to greater than "63". Use this to "bypass" the effect for comparison.

#### Boost 0 Cut 127:

To boost frequencies set to "0". To cut frequencies set to "127".

# **KICK NOTCH**

# Notches out space for the kick in the bass signal



#### Notch Freq:

Sets the centre frequency for the cut EQ.

#### Notch Q:

Adjusts the bandwidth of the EQ.

#### Notch Depth:

Adjusts the amount of signal cut/attenuated at the notch frequency.

# MASTER COMPRESSOR LIMITER

# Transparent mastering compressor limiter combination



#### Comp On:

Turns the compressor On and Off. Use as a "bypass" function for comparison.

#### Ratio:

Adjusts the compression slope. The range is restricted to values suitable for transparent mastering compression with 1.30:1 a good starting value.

#### Thresh:

Sets the threshold at which compression occurs. Start at -17dB for a signal peaking at approx -6dB. If you have an RMS level meter then adjust for a few dBs above the RMS value of the signal.

#### Knee:

Applies more gradual compression approaching the threshold.

#### Attack:

Sets the attack time for the compressor. Start at around 25mS and adjust to suit the track.

#### CompRel Auto & T:

Adjusts the Compressor release time. Start at around 300mS. Setting to minimum selects the "Auto" release function.

#### Limiter Gain:

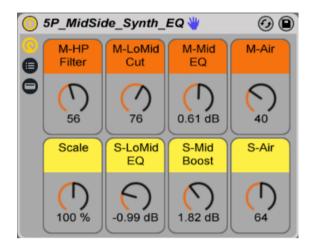
Adjusts the signal level into the limiter.

#### LimRel Auto & T:

Adjusts the limiter release time. Setting to minimum selects the "Auto" release function.

# MID SIDE SYNTH EQ

## A mid side EQ tailored for Synth and Lead voices



#### M-HP Filter:

Applies a high pass filter to the mid (mono) signal. Setting to "0" turns the filter off. Filtering lowest frequencies makes room for bass and drums and reduces mix "mud".

#### M-LoMid Cut

Cut EQ for the mid (mono) lower mid band centred at 285Hz. Cutting makes room for any upper bass frequencies elsewhere in the mix.

#### M-Mid EQ:

Cut or boost EQ with a gentle slope for the mid (mono) mid band centred at 2kHZ. Cutting can reduce harshness whilst boosting can improve presence.

#### M-Air:

Boost EQ in the mid (mono) high band centred at 12kHz. Gentle boosting can add sparkle.

#### S-LoMid EO:

Cut or boost EQ for the side signal lower mid band centred at 285Hz. Cutting makes room for any upper bass frequencies elsewhere in the mix.

#### S-Mid Boost:

Boost EQ with a gentle slope for the side signal mid band centred at 2kHz. Boosting will increase stereo width where side signals are present.

#### S-Air:

Boost EQ in the side signal high band centred at 12kHz. Gentle boosting can add sparkle.

#### Scale:

Adjusts the amount of gain applied to all the EQs determined by the percentage but doesn't affect low pass, high pass or notch filters.

# MID/SIDE COMPRESSOR

# Mid/Side compressor for mixing and mastering



#### Comp Ratio:

Adjusts the compression slope. Higher ratios result in more gain reduction (compression).

#### Mid Thresh:

Sets the threshold at which compression occurs for mid (mono) component of the stereo signal. Set for approx -4dB of gain reduction as a start.

#### Mid Makeup:

Adjusts the mid (mono) component output level to compensate for the amount of gain reduction applied.

#### Side Thresh:

Sets the threshold at which compression occurs for side component of the stereo signal. Set for approx -2dB of gain reduction as a start.

#### Side Makeup:

Adjusts the side component output level to compensate for the amount of gain reduction applied and can be used to boost the side signal in relation to the mid (mono) signal for a wider mix.

#### SC EO On:

Engages a low shelf sidechain EQ for less bass frequency influence on the compressor.

#### SubBass Mono On:

Engages a high pass filter set to 120Hz to remove all low frequencies from the side signal.

#### Side Sat Drive:

Adjusts the signal level into the saturator for the side component. Use this to add body and width.

# MID/SIDE MASTER EQ

## Mid/Side EQ for mastering



#### LowShelf Cut:

Applies a mid (mono) low shelf cut EQ with a high pass filter for removing sub-sonic frequencies.

#### M-Low EQ:

Applies a cut or boost EQ centred at 90Hz that interacts with the "LowShelf Cut".

#### M-Mid Cut:

Cut frequencies in mid (mono) mid band 280Hz region to improve bass clarity.

#### M-Mid EQ:

Cut or boost EQ with a gentle slope for the mid (mono) mid band centred at 2kHz. Cutting can reduce harshness whilst boosting can improve presence.

#### M-Air:

Boost EQ in the mid (mono) high band centred at 12kHz. Gentle boosting can add sparkle.

#### Scale

Adjusts the amount of gain applied to all the EQs determined by the percentage but doesn't affect low pass, high pass or notch filters.

#### S-Mid EQ:

Cut or boost EQ with a gentle slope for the side signal mid band centred at 2kHz. Boosting relative to the mid (mono) component will increase stereo width.

#### S-Air:

Boost EQ in the side signal high band centred at 12kHz. Gentle boosting can add sparkle.

# MID/SIDE DECODER

# Decodes stereo signals and adjusts width



#### Solo Mid:

Solos the mid (mono) signal component.

#### Solo Side:

Solos the side signal component. Use this in conjunction with "Spectrum" to analyse the side signal distribution and to filter out any low frequencies present for improved bass response.

#### Side HP Filter On:

Turns on the side signal component high pass filter for removing bass frequencies. As a rule of thumb any frequencies below 120Hz should be removed from the side signal. This will depend on the steepness of the high pass filter deployed.

#### HP Filter Freq:

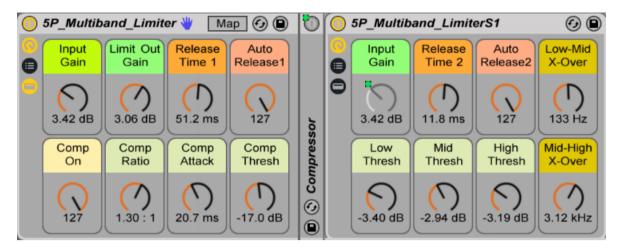
Adjusts the frequency of the high pass filter.

#### Stereo Width:

Increases or decreases side signal level to adjust the stereo width.

# **MULTIBAND LIMITER**

# A mutiband limiter for loud but transparent mastering



#### Input Gain:

Adjusts the input signal level.

#### Limit Out Gain:

Adjusts the level of the recombined output signal into the final limiter stage.

#### Release Time 1:

Adjusts the release time for the final limiter stage.

#### Auto Release 1:

Engages "Auto Release" when set to greater than "63". This overrides manual release time.

#### Comp On:

Turns the compressor On and Off. Use as a "bypass" function for comparison.

#### Comp Ratio

Adjusts the compression slope. The range is restricted to values suitable for transparent mastering compression with 1.30:1 a good starting value.

#### Comp Attack:

Sets the attack time for the compressor. Start at around 25mS and adjust to suit the track.

#### Comp Thresh:

Sets the threshold at which compression occurs. Start at -17dB for a signal peaking at approx -6dB. If you have an RMS level meter then adjust for a few dBs above the RMS value of the signal.

#### Release Time 2:

Adjusts the release time for all the multiband limiters in tandem.

#### Auto Release 2:

Engages "Auto Release" for all the multiband limiters in tandem when set to greater than "63". This overrides manual release time.

#### Low Mid X-Over:

Sets the filter crossover frequency between the low and mid bands (range is 90Hz to 200HZ). This determines which frequencies are sent to the low band limiter.

#### Mid High X-Over:

Sets the filter crossover frequency between the mid and high bands (range is 300Hz to 15kHZ). This determines which frequencies are sent to the mid and high band limiters.

#### Low Thresh:

Sets the threshold at which limiting occurs for the low band. Open the rack to view the low band limiter and set for onset of limiting (2-3dB) when there is a section in the program material with plenty bass present. For more loudness higher values can be used at the expense of distortion but make sure that all the bands are limiting fairly evenly.

#### Mid Thresh:

Sets the threshold at which limiting occurs for the mid band. Open the rack to view the low band limiter and set for onset of limiting (2-3dB) when there is a section in the program material with plenty mid frequencies present. For more loudness higher values can be used at the expense of distortion but make sure that all the bands are limiting fairly evenly.

#### High Thresh:

Sets the threshold at which limiting occurs for the mid band. Open the rack to view the low band limiter and set for onset of limiting (2dB) when there is a section in the program material with plenty high frequencies present. For more loudness higher values can be used at the expense of distortion but make sure that all the bands are limiting fairly evenly.

# MULTIBAND MASTER COMPRESSOR A

## Multiband compressor optimised for mastering



#### Thresh:

Sets the threshold at which compression occurs. Adjust for 2 to 3 dBs gain reduction showing in the low band as a starting point. Parameter ranges have been optimised for an input signal peaking around -6dB.

#### Low Makeup:

Adjusts the low band level out to compensate for the amount of gain reduction applied.

#### Mid Makeup:

Adjusts the mid band level out to compensate for the amount of gain reduction applied.

#### High Makeup:

Adjusts the high band level out to compensate for the amount of gain reduction applied.

#### Time Scaling:

Globally adjusts all timing determined by the percentage.

#### Amount:

Adjusts the amount of wet signal versus dry signal for parallel style compression.

#### Master Output:

Adjusts the output signal level. Adjust for constant output level with and without compression applied to monitor the effect.

#### Bypass:

Turns the compressor On and Off. Use in conjunction with the "Master Output" for monitoring the effect.

# STEREO MASTER EQ

# Musical gentle slope EQ for mastering solid mixes



#### LowShelf:

Applies a very low Q low shelf EQ centred at 1kHz for tilting the lower band up or down. Setting to minimum turns filter off.

#### Sub Filter:

Applies a steep high pass filter to remove unwanted sub-bass frequencies.

#### Low Mid Cut:

Cuts frequencies in the low mid band 350Hz region to improve low end clarity.

#### Mid EO:

Cut or boost EQ with a gentle slope for the mid band centred at 2kHz. Use in conjunction with "Low Mid Cut" to create a "classic smiley face" EQ.

#### High EQ:

Cut or boost EQ with a medium slope for the high band centred at 6kHz.

#### High Cut Filter:

Applies a steep high cut filter to remove unwanted high frequencies. Setting to maximum turns filter off.

#### High Shelf:

Applies a very low Q high shelf EQ centred at 1kHz for tilting the upper band up or down.

#### Air:

Boost EQ in the high band centred at 12kHz. Gentle boosting can add sparkle.

# **VOCAL CHANNEL**

# A vocal mix channel



#### MidSide LoShelf:

Applies a gentle linked mid-side (stereo) low shelf EQ with cut or boost centred on 500Hz. Cutting will reduce any boom present whilst boosting slightly can rebalance a vocal.

#### MidSide Body:

Cut and boost a linked mid-side (stereo) EQ for the lower mid band centred at 450Hz. Cutting reduces "boxiness" whilst boosting can fill out a thin sounding vocal.

#### Mid Mid Cut:

Cut EQ for the mid (mono) mid band centred at 1.5kHz. Cutting can help reduce nasal harshness in the vocal.

#### MidSide Hi Cut:

Cut EQ for a linked mid-

side (stereo) high band centred at 6.6kHz. Cutting reduces sibilance and "tizziness".

#### MidSide Air:

Cut and boost EQ in the very high band centred at 12kHz. Gentle boosting can give vocals air and sparkle.

#### Comp Ratio:

Adjusts the compression slope. Higher ratios result in more gain reduction (compression).

#### Comp Attack:

Adjusts the compressor attack time. Higher values allow more transient signal through.

#### Comp Release:

Adjusts the release time of the compressor.

# PROCESS RACKS

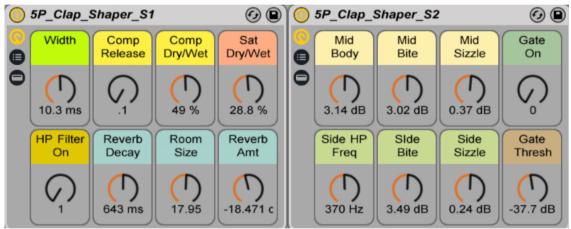
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# **CLAP SHAPER**

# Shapes claps by controlling dynamics, width, depth and tone





#### **Output Level:**

Adjusts the final output level.

#### Stereo W-Out:

Adjusts the final output stereo width. Use in conjunction with the "Width" parameter to get just the right stereo balance.

#### Width:

Adds stereo width by delaying one channel. Set to min (1ms) to turn off delay.

#### Comp Release:

Adjusts the release time of the compressor to shape the body and decay.

#### Comp Dry/Wet:

Dials in the amount of compressor signal versus dry signal for desired punch and decay.

#### Sat Dry/Wet:

Dials in the amount of Saturator signal versus dry signal for more or less distortion.

#### HP Filter On:

Removes low frequencies from the reverb signal chain.

#### Reverb Decay:

Adjusts the reverb decay time.

#### Room Size:

Adjusts the reverb room size.

#### Reverb Amt:

Adjusts the amount of reverb.

#### Mid Body:

Increases or decreases the amount of clap body in the mid (mono) part of the signal.

#### Mid Bite:

Increases or decreases the amount of clap presence in the mid (mono) part of the signal.

#### Mid Sizzle:

Increases or decreases the amount of clap top end in the mid (mono) part of the signal.

#### Gate On

Turns on the Gate effect for gating the signal determined by the threshold.

#### Gate Thresh:

Sets the threshold at which the at which the gate effect triggers.

#### Side HP Freq:

Adjusts the High Pass Filter frequency for the side part of the signal.

#### Side Bite:

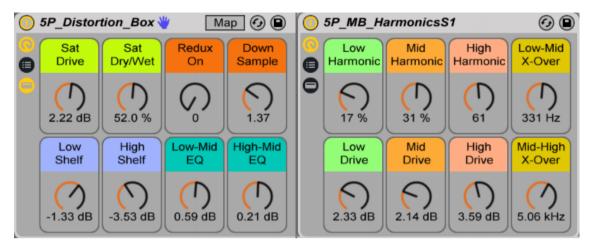
Increases or decreases the amount of clap presence in the side part of the signal.

#### Side Sizzle:

Increases or decreases the amount of clap top end in the side part of the signal.

## DISTORTION BOX

# Adds distortion to any material with a wide range of control



#### Sat Drive:

Adjusts the signal level into the saturator. Higher levels result in more saturation distortion applied to the recombined output signal.

#### Sat Dry/Wet:

Sets the amount of processed (wet) signal versus unprocessed (dry) signal for the saturator effect applied to the recombined output signal.

#### Redux On:

Turns on the bitcrusher effect which is set to 12 bit depth and is applied to the recombined output signal.

#### Down Sample:

Operation requires the Redux bitcrusher to be turned on and adds old skool grit to the recombined output signal.

#### Low Shelf:

Applies a gentle low shelf EQ with cut or boost centred on 230Hz to the recombined output signal.

#### High Shelf:

Applies a gentle high shelf EQ with cut or boost centred on 5kHz to the recombined output signal.

#### Low Mid EQ:

Cut or boost frequencies in the low mid 460Hz region with a medium Q (bandwidth) EQ to the recombined output signal.

#### High Mid EQ:

Cut or boost frequencies in the high mid 3kHz region with a medium Q (bandwidth) EQ to the recombined output signal.

#### Low Harmonic:

Adjusts the amount of low band harmonic distortion.

#### Low Drive:

Adjusts the signal level into the saturator for the low band. Higher levels result in more saturation distortion.

#### Mid Harmonic:

Adjusts the amount of mid band harmonic distortion.

#### Mid Drive:

Adjusts the signal level into the saturator for the mid band. Higher levels result in more saturation distortion.

#### High Harmonic:

Adjusts the amount of high band harmonic distortion.

#### High Drive:

Adjusts the signal level into the saturator for the high band. Higher levels result in more saturation distortion.

#### Low Mid X-Over:

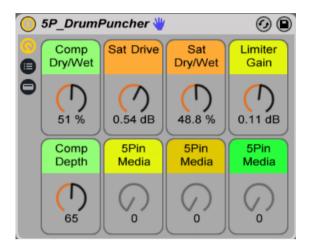
Sets the filter crossover frequency between the low and mid bands (range is 1Hz to 1kHZ). This determines which frequencies are affected by the distortion applied.

# Mid High X-Over:

Sets the filter crossover frequency between the mid and high bands (range is 1kHz to 15kHZ). This determines which frequencies are affected by the distortion applied.

# **DRUM PUNCHER**

# Adds weight and presence to full drum mixes



#### Comp Dry/Wet:

Dials in the amount of compressor signal versus dry signal for New York style compression.

#### Comp Depth:

Adjusts the depth of compression by adjusting the compression threshold and compensates the output level at the same time.

#### Saturator Drive:

Adjusts the signal level applied to the saturator. Higher levels result in more saturation.

#### Sat Dry/Wet:

Adjusts the amount of saturator signal versus dry signal for more or less distortion.

#### Limiter Gain:

Adjusts the signal level applied to the limiter.

# DRUM TRASHER

# Adds distortion to drums with a wide range of control



#### Sat Drive:

Adjusts the signal level into the saturator. Higher levels result in more saturation distortion applied to the recombined output signal.

#### Sat Dry/Wet:

Sets the amount of processed (wet) signal versus unprocessed (dry) signal for the saturator effect applied to the recombined output signal.

#### Redux On:

Turns on the bitcrusher effect which is set to 12 bit depth and is applied to the recombined output signal.

#### Down Sample:

Operation requires the Redux bitcrusher to be turned on and adds old skool grit to the recombined output signal.

#### Low Shelf:

Applies a gentle low shelf EQ with cut or boost centred on 230Hz to the recombined output signal.

#### High Shelf

Applies a gentle high shelf EQ with cut or boost centred on 5kHz to the recombined output signal.

#### Low Mid EQ:

Cut or boost frequencies in the low mid 460Hz region with a medium Q (bandwidth) EQ to the recombined output signal.

#### High Mid EQ:

Cut or boost frequencies in the high mid 3kHz region with a medium Q (bandwidth) EQ to the recombined output signal.

#### Low Harmonic:

Adjusts the amount of low band harmonic distortion.

#### Low Drive:

Adjusts the signal level into the saturator for the low band. Higher levels result in more saturation distortion.

#### Mid Harmonic:

Adjusts the amount of mid band harmonic distortion.

#### Mid Drive:

Adjusts the signal level into the saturator for the mid band. Higher levels result in more saturation distortion.

#### High Harmonic:

Adjusts the amount of high band harmonic distortion.

#### High Drive:

Adjusts the signal level into the saturator for the high band. Higher levels result in more saturation distortion.

#### Low Mid X-Over:

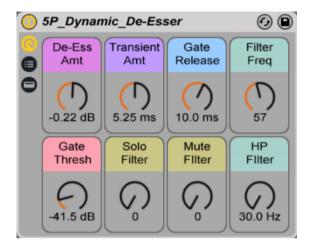
Sets the filter crossover frequency between the low and mid bands (range is 1Hz to 1kHZ). This determines which frequencies are affected by the distortion applied.

# Mid High X-Over:

Sets the filter crossover frequency between the mid and high bands (range is 1kHz to 15kHZ). This determines which frequencies are affected by the distortion applied.

# DYNAMIC DE-ESSER

# Transparently reduces sibilance in vocals



#### De-Ess Amt:

Adjusts the amount of sibilance removed from the signal.

#### Gate Thresh:

Sets the threshold at which the at which the gate triggers letting more or less transient signal pass. With "Solo Transient" set to on, adjust such that only the transients of the signal pass.

#### Transient Amt:

Adjusts the attack time for the gate shaping the transient. Higher values smooth the transient attack.

#### Gate Release:

Adjusts the release time of the gate thereby shaping the transient envelope.

#### Solo Filter:

Solos the filter signal when set to greater than "63". The filter signal is subtracted from the dry signal thereby removing sibilance. Use this to set the gate threshold and any other adjustments being made to the filter signal without the dry signal present.

#### Mute Filter:

Mutes the filter signal when set to greater than "63". Use this to "bypass" the effect for comparison.

#### Filter Freq:

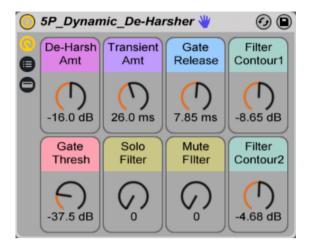
Tunes the bandpass filter to the sibilance. set the "Solo Filter" to on and sweep until the unwanted signal is strongest. Minimum value starts at 2.5kHz - midway 6.5kHz and maximum 12kHz. Most sibilance occurs around 6kHz.

#### HP Filter:

Removes unwanted low frequency rumble.

# DYNAMIC DE-HARSHER

# Transparently reduces harshness in the high frequency band



#### De-Harsh Amt:

Adjusts the amount of harsh frequencies removed from the signal.

#### Gate Thresh:

Sets the threshold at which the at which the gate triggers letting more or less transient signal pass. With "Solo Transient" set to on, adjust such that only the transients of the signal pass.

#### Transient Amt:

Adjusts the attack time for the gate shaping the transient. Higher values smooth the transient attack.

#### Gate Release:

Adjusts the release time of the gate thereby shaping the transient envelope.

#### Solo Filter:

Solos the filter signal when set to greater than "63". The filter signal is subtracted from the dry signal thereby removing harshness. Use this to set the gate threshold and any other adjustments being made to the filter signal without the dry signal present.

#### Mute Filter:

Mutes the filter signal when set to greater than "63". Use this to "bypass" the effect for comparison.

#### Filter Contour1:

Adjusts the lower side slope of the Filter with "Filter Contour2".

#### Filter Contour2:

Adjusts the lower side slope of the Filter with "Filter Contour1".

# DYNAMIC VALVE EQ

# Dynamically adds groove and grit to drums, bass and leads



#### Tube Type:

Selects the type of tube which determines the characteristics of the distortion.

#### Drive:

Adjusts the signal level into the dynamic tube. Higher levels result in more tube distortion.

#### Tone:

Adjusts the harmonic distribution of the distortion.

#### Bias:

Adjusts the tube bias for more or less distortion. Higher values move the transfer function to the nonlinear region where distortion occurs.

#### Envelope:

Adjusts the envelope followers modulation of the tube bias current with higher values (positive or negative) having more effect. Positive values generate more distortion of the high level signals whilst negative values generate more distortion of the low level signals. This parameter lies at the heart of this effect and is key to transforming the feel, character and groove of bass and drums especially.

#### Attack:

Adjusts the attack time for the envelope follower thus shaping the onset of the distortion.

#### Release:

Adjusts the release time for the envelope follower thus shaping the release phase of the distortion.

#### Dry/Wet:

Dials in the amount of tube signal versus dry signal for more or less tube effect.

#### Bass Boost:

A low Q (wide band) musical shelf boost for the low frequencies.

#### Bass Boost:

A low Q (wide band) musical shelf boost for the low frequencies.

#### Mid Hi Boost:

Applies a gentle boost in the mid to high band region centred on 2.5kHz, 4kHZ or 11kHZ depending on the value of "2K-4K-Hi Select" parameter.

#### 2K-4K-Hi Select:

Selects between 2kHZ, 4kHz or 11kHz frequencies for the "Mid Hi Boost".

#### Mid Cut:

Gentle adaptive Q mid band cut centred on 700Hz.

#### Bass Cut:

Gentle adaptive Q bass cut centred on 40Hz.

# Hi Shelf Cut:

A low Q (wide band) musical shelf cut for re-balancing high frequencies generated by the tube distortion.

# Output Level:

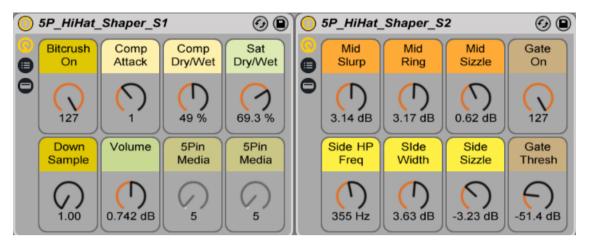
Adjusts the output signal level.

# EQ On:

Turns the EQ on or off.

# **HI-HAT SHAPER**

# Shapes Hi-Hats by controlling dynamics, width and tone



#### Bitcrush On:

Turns on the bitcrusher effect which is set to 12 bit depth.

#### Downsample:

Operation requires the bitcrusher to be turned on and adds old skool grit to the hi-hats.

#### Comp Attack:

Adjusts the compressor attack time. Higher values allow more transient signal through.

#### Comp Dry/Wet:

Dials in the amount of compressor signal versus dry signal for desired punch and groove.

#### Sat Dry/Wet:

Dials in the amount of Saturator signal versus dry signal for more or less distortion.

#### Volume:

Adjusts the signal chain volume.

#### Mid Slurp:

Increases or decreases frequencies in 600Hz mid (mono) band for more or less hi-hat "slurp".

#### Mid Ring:

Increases or decreases frequencies in the 3kHz mid (mono) band for more or less hi-hat "ring".

#### Mid Sizzle:

Increases or decreases frequencies in the mid (mono) top end for more or less hi-hat "sizzle".

#### Gate On:

Turns on the Gate effect for gating the signal determined by the threshold.

#### Gate Thresh:

Sets the threshold at which the at which the gate effect triggers.

#### Side HP Frea:

Adjusts the High Pass Filter frequency for the side (stereo) part of the signal.

#### Side Width:

Increases or decreases the amount of side signal for more or less stereo width.

#### Side Sizzle:

Increases or decreases frequencies in the side signal top end for more or less hi-hat "sizzle".

# KICK CHARACTER

# Applies tuned distortion to kick drums for colour and presence



#### Comp Dry/Wet:

Sets the amount of compressor signal versus dry signal for desired punch and decay. Setting to minimum value turns off the compressor.

#### Comp Range:

Restricts the depth of compression that can be applied for precise kick envelope shaping.

#### Filter Freq:

Tunes a band pass filter selecting the signal frequencies to which distortion is applied.

#### Filter B-Width:

Adjusts the bandpass filters bandwidth for less or more frequencies passed.

#### Tone

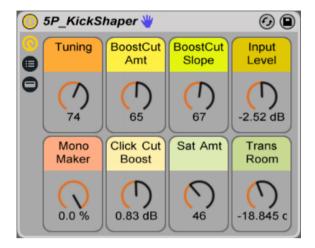
Adjusts the amount of higher frequencies in the signal. Higher values result in a brighter sound.

#### Over-D Dry/Wet:

Sets the amount of processed (wet) signal versus unprocessed (dry) signal for the Overdrive Distortion.

# **KICK SHAPER**

# Shapes Kicks with Pultec style boost/cut EQ and adds colour



#### Tuning:

Sets the centre frequency for the boost EQ and the cut EQ in tandem.

#### **BoostCut Amt:**

Adjusts the amount of boosted and cut signal frequencies determined by the Tuning.

#### BoostCut Slope:

Adjusts the bandwidth of the boost and cut EQ. Lower values result in a more linear slope.

#### Input Level:

Adjusts the signal level before the EQ. Trim to allow at least 6dB of headroom.

#### Mono Maker:

Removes any side (stereo) signal present by setting to 0%.

#### Click Cut Boost:

Focuses on adjusting the amount of kick "click" transient signal.

#### Sat Amt:

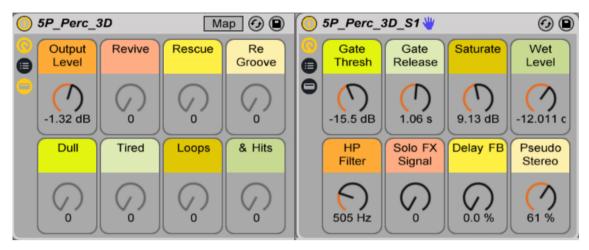
Applies gentle saturation for more or less distortion.

#### Transient Room:

Adjusts the amount of transient signal reverb that is added to the signal for more presence.

# PERC 3D

# Revives percussion by boosting transients and adding width



#### **Output Level:**

Adjusts the signal output level.

#### Gate Thresh:

Sets the threshold at which the at which the gate effect triggers letting more or less FX signal pass.

#### Gate Release:

Adjusts the release time of the gate.

#### Saturate:

Adjusts the saturator drive level applied to the FX signal. Increasing this will colour and increase the FX signal so rebalance the signal with the wet level after adjusting.

#### Wet Level:

Adjusts the level of the FX signal. Use in conjunction with "Solo FX Signal" to monitor the character and level.

#### HP Filter On:

Removes low frequencies from the FX signal chain.

#### Solo FX Signal:

Solos the FX signal when set greater than "63". Use this to set the gate threshold and any other adjustments being made to the FX signal without the dry signal being present.

#### Delay FB:

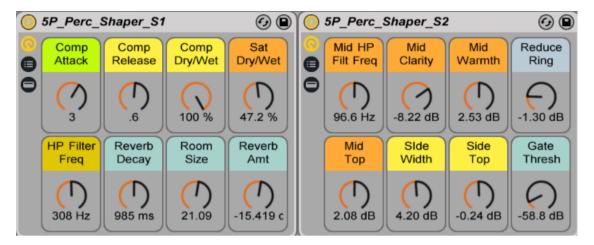
Adjusts the amount of delay feedback for buzzy metallic effects. Perfect for automation.

#### Pseudo Stereo:

Adjusts the amount of stereo widening applied to the FX signal and can be used to add stereo to mono sources. Works in conjunction with the "HP Filter" to determine which frequencies are affected.

# PERCUSSION SHAPER

# Shapes Percussion by controlling dynamics, width, depth and tone



#### Comp Attack:

Adjusts the compressor attack time. Higher values allow more transient signal through.

#### Comp Release:

Adjusts the release time of the compressor to shape the body and decay.

#### Comp Dry/Wet:

Dials in the amount of compressor signal versus dry signal for desired punch and decay.

#### Sat Dry/Wet:

Dials in the amount of Saturator signal versus dry signal for more or less distortion.

#### HP Filter On:

Removes low frequencies from the reverb signal chain.

#### Reverb Decay:

Adjusts the reverb decay time.

#### Room Size:

Adjusts the reverb room size.

#### Reverb Amt:

Adjusts the amount of reverb.

#### Mid HP Filter Freq:

Removes low frequencies from the mid (mono) signal chain.

#### Mid Clarity:

Cuts frequencies in the 250Hz mid (mono) band for more better signal clarity.

#### Mid Warmth:

Increases or decreases frequencies in the 450Hz mid (mono) band affecting signal "warmth".

#### Reduce Ring:

Cuts frequencies in the 800Hz mid (mono) band to reduce "ring" on hand drums such as congas.

#### Mid Top:

Increases or decreases the amount of top end with a gentle sloping high shelf filter.

#### Mid Knock:

Increases or decreases the amount of snare "knock" in the mid (mono) part of the signal.

#### Side Width:

Increases or decreases the amount of side signal for more or less stereo width.

#### Side Top:

Increases or decreases the amount of top end in the side part of the signal.

#### Gate Thresh:

Sets the threshold at which the at which the gate effect triggers.

# **PSEUDO STEREO**

# Adds a side signal component to mono signals



#### L Time Delay:

Delays the left channel up to 14ms with 8mS a good starting value.

#### Filter Freq:

Sets the frequency of a high pass filter for the side signal component. Use to limit how much low frequency content is present in the stereo signal.

#### Dry/Wet:

Dials in the amount of wet signal versus dry signal for more or less stereo effect.

#### Phase Left:

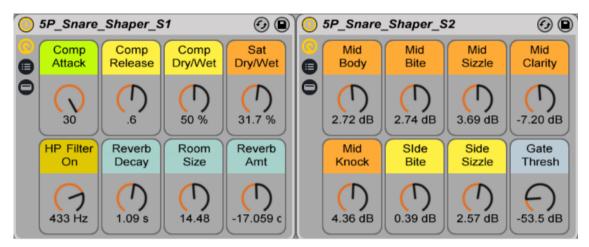
Reverses the phase of the left channel.

#### Phase Right:

Reverses the phase of the right channel.

# **SNARE SHAPER**

# Shapes snares by controlling dynamics, width, depth and tone



#### Comp Attack:

Adjusts the compressor attack time. Higher values allow more transient signal through.

#### Comp Release:

Adjusts the release time of the compressor to shape the body and decay.

#### Comp Dry/Wet:

Dials in the amount of compressor signal versus dry signal for desired punch and decay.

#### Sat Dry/Wet:

Dials in the amount of Saturator signal versus dry signal for more or less distortion.

#### HP Filter On:

Removes low frequencies from the reverb signal chain.

#### Reverb Decay:

Adjusts the reverb decay time.

#### Room Size:

Adjusts the reverb room size.

#### Reverb Amt:

Adjusts the amount of reverb.

#### Mid Body:

Increases or decreases the amount of snare body in the mid (mono) part of the signal.

#### Mid Bite:

Increases or decreases the amount of snare presence in the mid (mono) part of the signal.

#### Mid Sizzle:

Increases or decreases the amount of snare top end in the mid (mono) part of the signal.

#### Mid Clarity:

Cuts frequencies in the mid (mono) band (800Hz) for better signal clarity.

#### Mid Knock:

Increases or decreases the amount of snare "knock" in the mid (mono) part of the signal.

#### Side Bite:

Increases or decreases the amount of snare presence in the side part of the signal.

#### Side Sizzle:

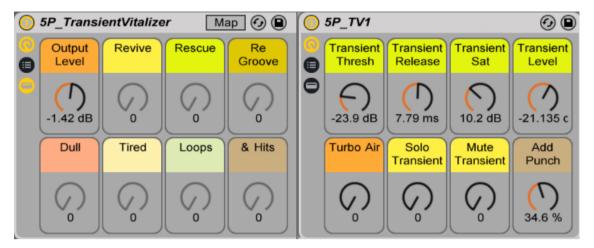
Increases or decreases the amount of snare top end in the side part of the signal.

#### Gate Thresh:

Sets the threshold at which the at which the gate effect triggers.

# TRANSIENT VITALIZER

# Enhances drums, percussion and other transient rich signals



#### **Output Level:**

Adjusts the signal output level.

#### Transient Thresh:

Sets the threshold at which the at which the gate triggers letting more or less transient signal pass. With "Solo Transient" set to on, adjust such that only the transients of the signal pass.

#### Transient Release:

Adjusts the release time of the gate thereby shaping the transient envelope.

#### Transient Sat:

Adjusts the saturator drive level applied to the transient signal. Increasing this will colour and increase the transient signal. Rebalance the signal with the "Transient Level" after adjusting.

#### Transient Level:

Adjusts the level of the transient signal. Use in conjunction with "Solo Transient" to monitor the character and level.

#### Turbo Air:

Ads high frequency distortion to the transient signal.

#### Solo Transient:

Solos the transient signal when set to greater than "63". Use this to set the gate threshold and any other adjustments being made to the FX signal without the dry signal present.

#### Mute Transient:

Mutes the transient signal when set to greater than "63". Use this to "bypass" the effect.

#### Add Punch:

Adds saturation to the combined output signal.

# **VINYL LOVE**

# Adds a vinyl sound to full mixes and loops



#### Crackle Volume:

Adjusts the crackle level.

#### Global Drive:

Adjusts the amount of vinyl effect distortion.

#### Noise Amt:

Sets the erosion effect modulation amount.

#### Noise Type:

Selects the erosion effect noise type.

#### Comp On:

Turns the compressor on for values greater than "63".

#### Comp Dry/Wet:

Dials in the amount of compressor signal versus dry signal.

#### Vinyl Off/On:

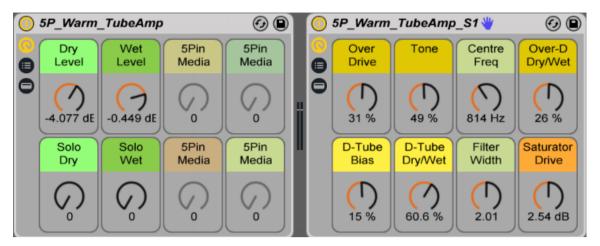
Turns the vinyl effect on for values greater than "63".

#### Hi Freq EQ:

Cut or boost high band frequencies centred on 7.7kHz.

# WARM TUBE AMP

# Adds analogue warmth and depth to full mixes and loops



#### Dry Level:

Adjusts the dry signal level.

#### Solo Dry:

Solos the dry signal.

#### Wet Level:

Adjusts the wet signal level.

#### Solo Wet:

Solos the wet signal. Turn on when adjusting the "Tube Amp S1" parameters.

#### Over Drive:

Adjusts the amount of distortion added to the signal.

#### Tone

Adjusts the amount of higher frequencies in the signal. Higher values result in a brighter sound.

#### Centre Freq:

Tunes a band pass filter selecting the signal frequencies to which distortion is applied.

#### Filter Width:

Adjusts the bandpass filters bandwidth for less or more frequencies passed.

#### Over-D Dry/Wet:

Sets the amount of processed (wet) signal versus unprocessed (dry) signal for the overdrive distortion.

#### **D-Tube Bias:**

Adjusts the tube bias for more or less distortion. Increasing moves the transfer function to the nonlinear region where distortion occurs.

#### D-Tube Dry/Wet:

Dials in the amount of tube signal versus dry signal for more or less tube effect.

#### Saturator Drive:

Adjusts the signal level into the saturator. Higher levels result in more saturation distortion.