HYPE

THE THING THAT YOUR SOUND NEEDS



simple workflow, powerful multi-band enhancement


HYPE
Version 1.0
Concept : Marc Adamo and David Elton
Development : UrsaDSP, Chowdhury DSP and Theo Burt
UX and UI Design: Marc Adamo
Copyright ADPTR AUDIO 2024
ADPTR
ursaDSP

It all started with a problem…

Waveshaper based sonic enhancers have a common issue - they have a narrow sweet spot.

Put in a more technical way, the harmonic balance changes as the level of the input material increases.

Below a certain point wave-shaping mostly just makes the original signal louder. Over a certain point, harmonic colour will give way to excessive and often non-harmonic distortion.

We set about to find a way to add clean, unaliased harmonics without the side effect of unwanted changes to dynamics.

UrsaDSP's trajectory technology exists to solve a very specific but widely applicable problem – to separate the application of dynamics from the application of harmonic character. Tools that use it can make music louder without adding distortion OR add saturation without changing volume.

Now that we've liberated the harmonics from accidental gain change, how about we explore some new ways to dynamically shape our sound?

Since we want exceptional control, why not make it multi-band, but let's also do it with linear filters so we can process in parallel with perfect phase.

And you know what else is awesome to mix with in multi-band?
Mid-Side balance, independent for dry and wet, so let's add that to the mix and see what we can do.

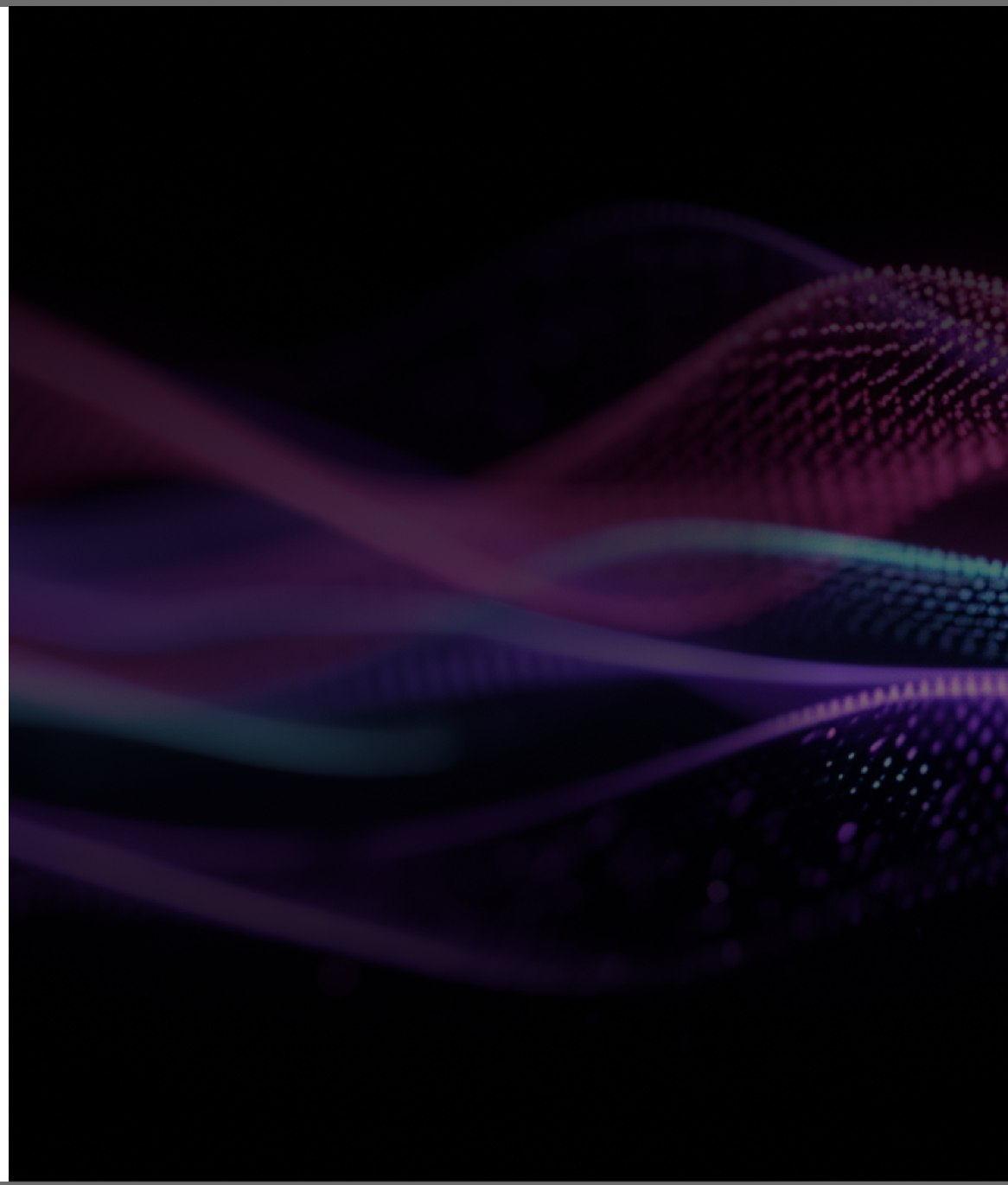
What started as a question, evolved into an obsession.

The combination of this goal and this technology and the myriad possibilities they create is the basis of the tool that you now have at your disposal. HYPE is an unparalleled sonic enhancer that allows you to separately address Dynamics, Harmonics and Stereo Width of both the dry and wet portions of the signal.

HYPE

Contents

Quick Start. **1**
Menu Options **2**
Preset Library **3**
Browse and Save Presets **4**
Interface Tour - Mix and Process **5**
Module Presets **8**
The X-Over **9**
The Multi-Band Controls **10**
Compressors **13**
Compressor Controls **15**
Compressor Modes **16**
Harmonics **19**
Harmonics Controls **21**
Harmonics Modes **22**
Stereo Mid Side Management **23**
Stereo Controls **25**
Autogain **27**
Bypass and Solo **28**
Agregate Controls **29**
Automation Parameters **30**



Quick Start

1 Open Library

Smash through the presets by clicking on a preset name, or use the prev-next arrows to cycle through the list.

2 Filter Presets

Filter the preset list by toggling the tags from the column.

3 Turn up the Hype Mix

Add a touch of Hype in parallel, or turn the Mix all the way up.

4 Tweak the Modules mix

Mix in the Compressor and Harmonics, balance the Stereo width.

5 Dial in the X-Over frequencies

Explore tonal variation by dialling in the X-Over to the audio.

6 Tweak the Tone

The Tone gets creamier as we push it up, minimum is neutral.

7 Adjust the Compressor Target level

Gently glide the Target fader to push the levels towards the ideal range. This one is best tuned by ear.

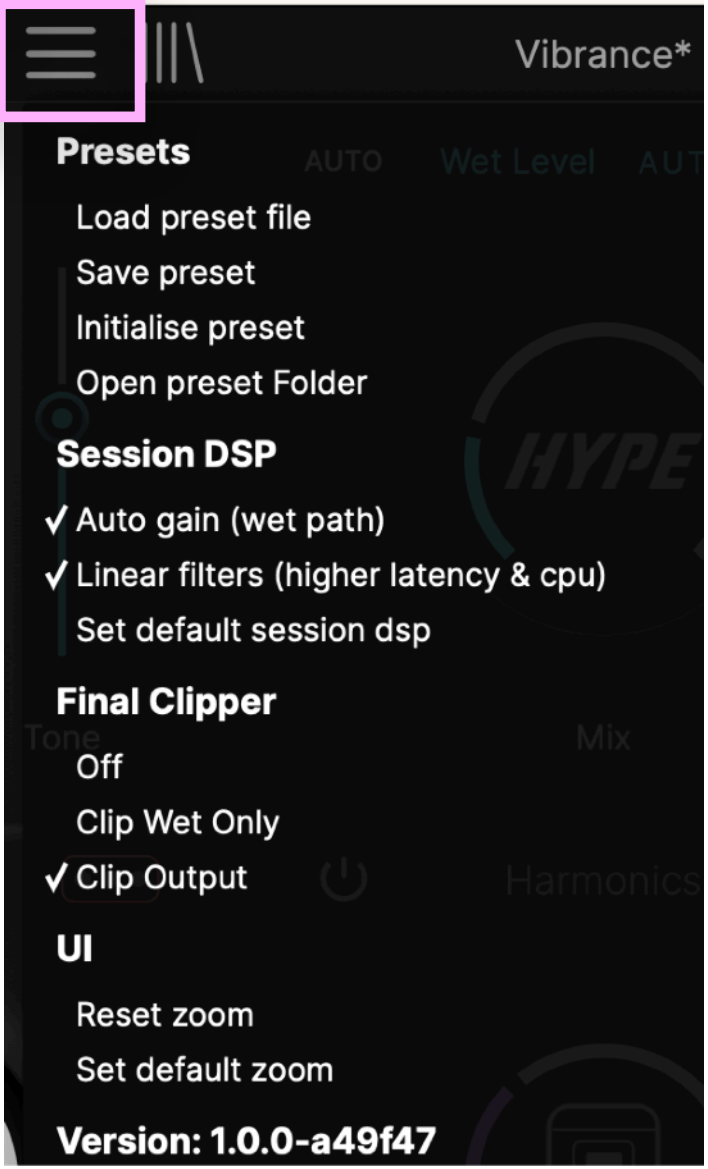
1 Exit the library to reveal the control panel.

Toggle the library button to show the preset explorer.



Menu Options

1 Click the burger to Open the Menu



Presets
Load preset : load a preset from disk
Save preset : opens the save window
Initialise preset : starts a new preset with default vanilla values
Open preset folder : no surprises here we hope this opens the folder where you have saved **user** presets.

Session DSP : settings linked to your current session rather than the preset.
Auto Gain : Automatically level matches the wet signal to the dry
Linear Filters : Preserves Phase accuracy. Ideal for use when mastering or Bus/Parallel processing.
Set Default Session DSP : Makes current selection default when opening a new instance Hype.

Final Clipper : This can be positioned in the signal chain to clip either the Wet signal only, or the mixed output. It can also be off if you don't want it.
The Final Clipper will clip signals above 0dB.

Resize UI : Drag the lower right corner to resize the UI.
Reset Zoom : Click to reset to default size UI.
Set Default Zoom : set the current size as the default size when we open a new instance.

The Preset Library

1 Open Library



The icon turns blue when the browser is open.

Toggle it or click Close to close and go back to the main panel.

2 Filter Presets

Filter the preset list by toggling the tags from the column.

We can favourite presets and also filter them in the browser.

3 Favourites

Add presets to the Favourites by toggling the Heart Icon. We can then view just the favourites by clicking the Favourites filter menu.

Toggle the library button to show the preset explorer.



Every preset can display details of the author and notes on what the preset is for and how to use it.

You can add your own notes and author details when you save presets.

The **Middle panel** Presents the essential mix con of the mixing controls in a compact footprint

The Spectrum display is hidden, but we can tweak all the X-Over parameters and use the solo/mute buttons and per-band gain.

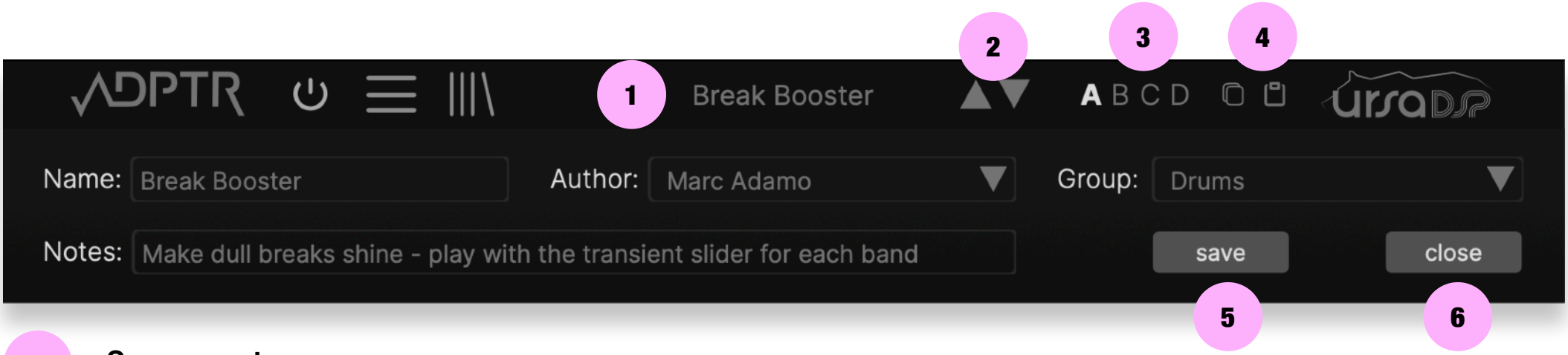
Browse and Save Presets

1 **Preset Name**

2 **Prev - Next Preset loading**

3 **A B C D** variations : click to select a different variation. We can load different presets from the menu or copy/paste settings

4 **Copy Paste :** copy and paste settings from another preset or even to another instance of Hype.



5 **Save preset**

6 **Close window :** use this when you change your mind, and don't want to save the preset.

When we select '**Save Preset**' from the menu, it opens the Save Preset Window.
Give the preset a name, add Author details and assign it to a group, e.g. Drums.
We can create new Author names and Group tags by typing something new, or if we want to reuse a name or group tag, we can select a previous Author name or Group using the down arrow.
Notes : we can also add some notes to helps us remember what we used it for, or some tips to work with it.

The Interface Tour



Hype is divided into three main work areas.

The **Top panel** comprises of the mixing controls, gain staging and metering.

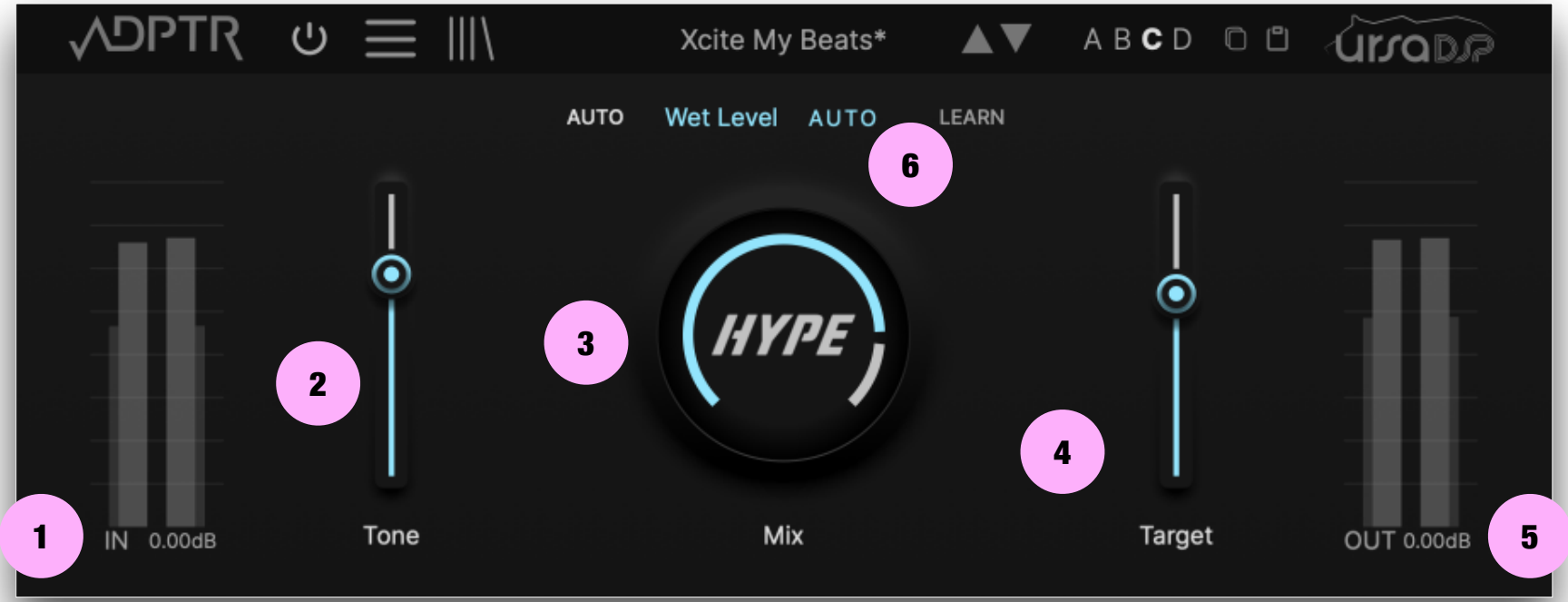
The **Middle panel** presents the 3 processing modules, with a large Mix control for each.

Click on the ‘Multi-Band’ icon To access the multi-band Parameters.

This will switch to show the Multi-band panel where you can tweak each parameter for the low, mid and high bands.

The **Lower panel** displays the spectrum meter and the multi-band X-Over controls.
Here you can edit the X-Over frequencies for the 3 bands, solo, bypass and edit the gain for each band.

The Interface Tour



1 **Input Gain meter**
Displays Peak and RMS levels.
Edit the gain by dragging the number +/- 24dB

2 **Tone Control**
Use this to sweep from Flat (minimum) to smooth (maximum). It will soften the very high end and scoop lower mids to produce a creamy tone.

3 **HYPE Mix**
Balance the dry and wet (processed) signals to achieve the ideal tone. HYPE is a true parallel processor.

4 **Target** This sets the level for the Compressor **Target**.
Each Compressor mode has a specific function for the Target Level. Check out the Compressor modes for more details.

5 **Output Gain meter**
Displays Peak and RMS levels.
Edit the gain by dragging the number +/- 24dB

6 **Wet Gain Level**
Edit the Wet Gain by dragging the number +/- 12dB.
Toggle AUTO to activate Auto Gain, the dB will display **AUTO**.
Learn will level match the gain momentarily.

The Interface Tour



1 **Active / Bypass Toggle Compressor module**

2 **Compressor Mix :** Dial in the amount of processing.

3 Toggle to access the multi-band **Compressor** Parameters. This will switch to show the **Multi-band** panel where you can tweak each parameter for the low, mid and high bands.

4 **Harmonics Mix :** Dial in the amount of processing.

5 Toggle the **Multi-Band** button to access the multi-band **Harmonics** Parameters.

6 **Stereo Mix :** Dial in the amount of Mid-Side processing for each band of the wet and dry signals.

7 Toggle the **Multi-Band** button to access the multi-band **Stereo Mix** Parameters.

8 **Open Preset library** to load settings for the selected module ONLY - see “Module Presets”

9 **Preset Name** and **Previous - Next** buttons
this will update only the settings for the selected module.

Module Presets

Each module can load preset settings from the main preset library. When doing this, HYPE will load the parameters for the selected module only.

This way we can quickly experiment with a module's settings, without disturbing the other two modules.

We can load presets for a specific module by clicking on the library icon for that module.

If we click the library icon on the main page, it will open the multi-band page to help focus on the selected module, and give us quick access to the settings for tweaking.



1 **Open the Module Preset library**

2 **Current Module preset is displayed in matching colour. e.g. compressor = red**

3 **Preset Name and Previous - Next buttons**

4 **Click the Close button to finish**

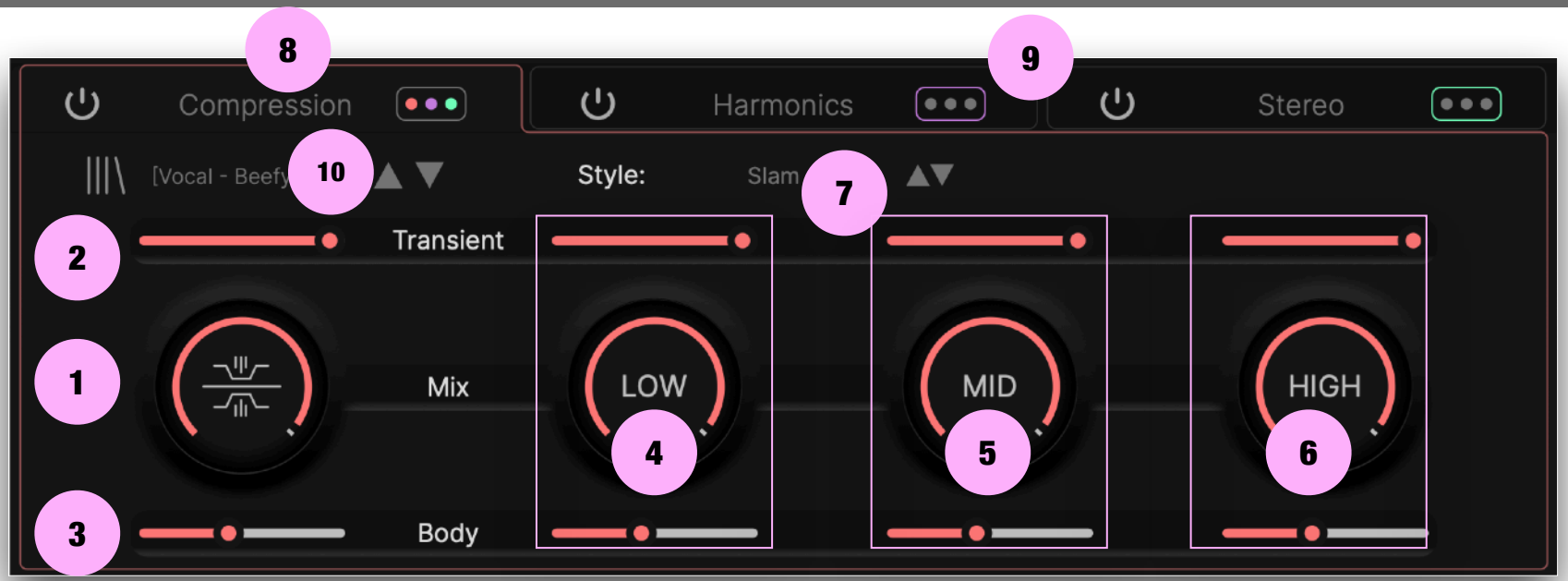
The Interface Tour - X-Over



We can get a lot of tonal variation by experimenting with the X-Over frequencies

1. **Low Band Zone**. Toggle on this area to Bypass processing.
2. **Mid Band Zone**. Toggle on this area to Bypass processing. Edit the Range by dragging either of the range markers
3. **High Band Zone**. Toggle on this area to Bypass processing.
4. **Lock X-Over**. Toggle this button to lock the X-Over frequencies in place. This is ideal for when you want to experiment with new presets, but don't want to change the X-Over.
5. **Edit Low Gain +/-24dB, Bypass Band, Solo Band**
6. **Low X-Over**. Drag to edit the value
7. **Edit Mid Gain +/-24dB, Bypass Band, Solo Band**.
8. **High X-Over**. Drag to edit the value
9. **Edit High Gain +/-24dB, Bypass Band, Solo Band**

Compressor Detail panel : Multi-Band



1 **Mix AC :** Aggregate Control for All Bands

2 **Transient AC :** Aggregate Control for All Bands

3 **Body AC :** Aggregate Control for All Bands

4 **Low Band Parameters**

5 **Mid Band Parameters**

6 **High Band Parameters**

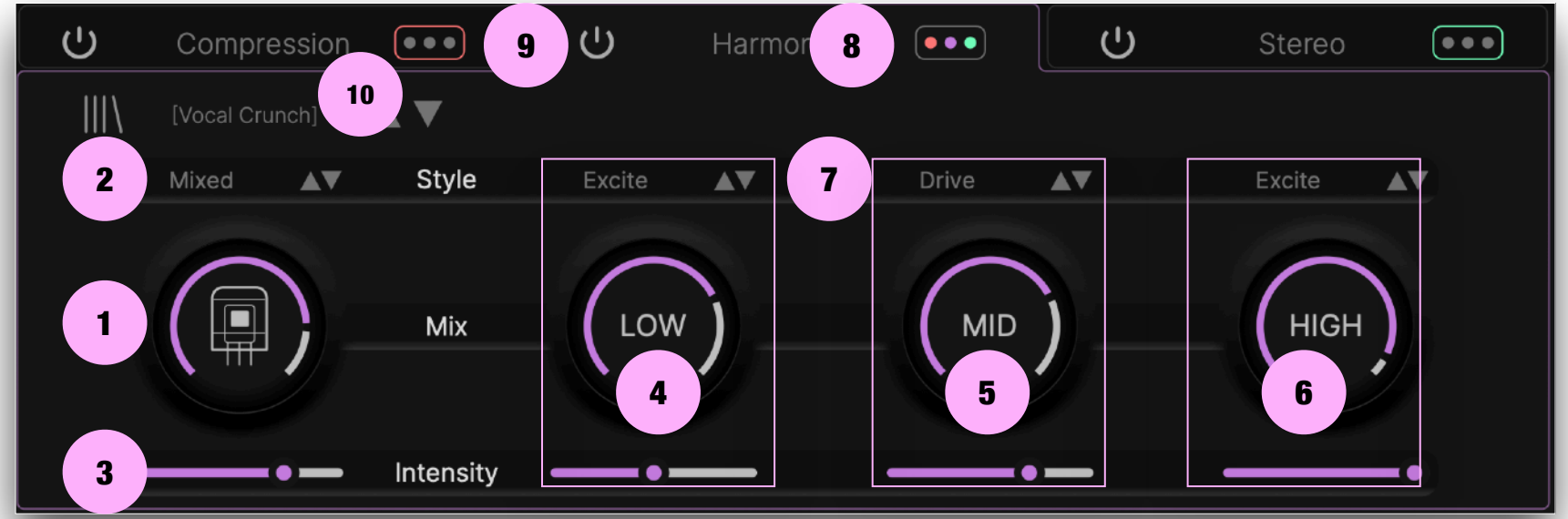
7 **Compressor Sale Menu:** Click and hold for Menu, select from the list. Or just use the Browser buttons instead.

8 **Toggle** Back to the Mix Panel to see Harmonics and Stereo Mix knobs

9 **Select the Harmonics Multi-Band Page**

10 **Load or Browse a module preset**

Harmonics Detail panel : Multi-Band



1 **Mix AC :** Aggregate Control for All Bands

2 **Harmonics Mode :** Select the mode for All Bands. Click and hold for Menu, select from the list. Or just use the Browser buttons instead.

3 **Intensity AC :** Edit the **Intensity** for All Bands

4 **Low Band Parameters**

5 **Mid Band Parameters**

6 **High Band Parameters**

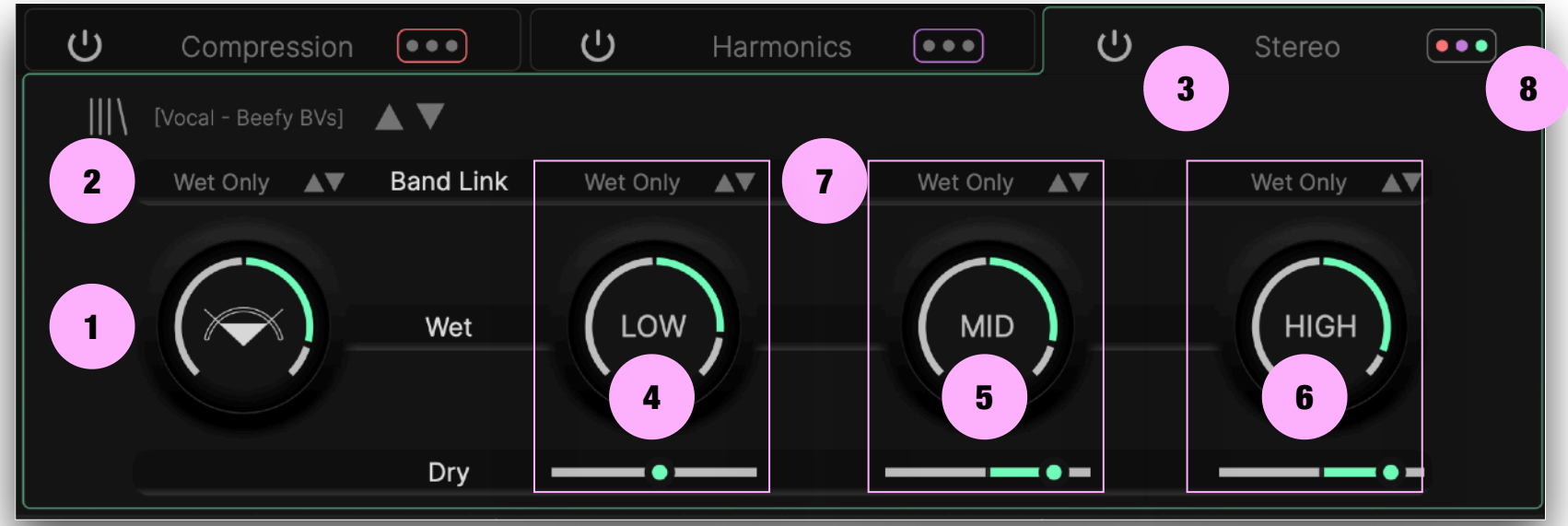
7 **Harmonics mode Menu :** Select mode per band, just like the main menu, but just for this band, have fun.

8 **Toggle** Back to the Mix Panel to see Compressor and Stereo Mix knobs

9 **Bypass processing for this module**

10 **Load or Browse a module preset**

Stereo Detail panel : Multi-Band



1 **Mix AC :** Aggregate Control for All Bands

2 **Stereo Control Mode :** Select the mode for All Bands. Click and hold for Menu, select from the list. Or just use the Browser buttons instead.

3 **Bypass processing for the Stereo module**

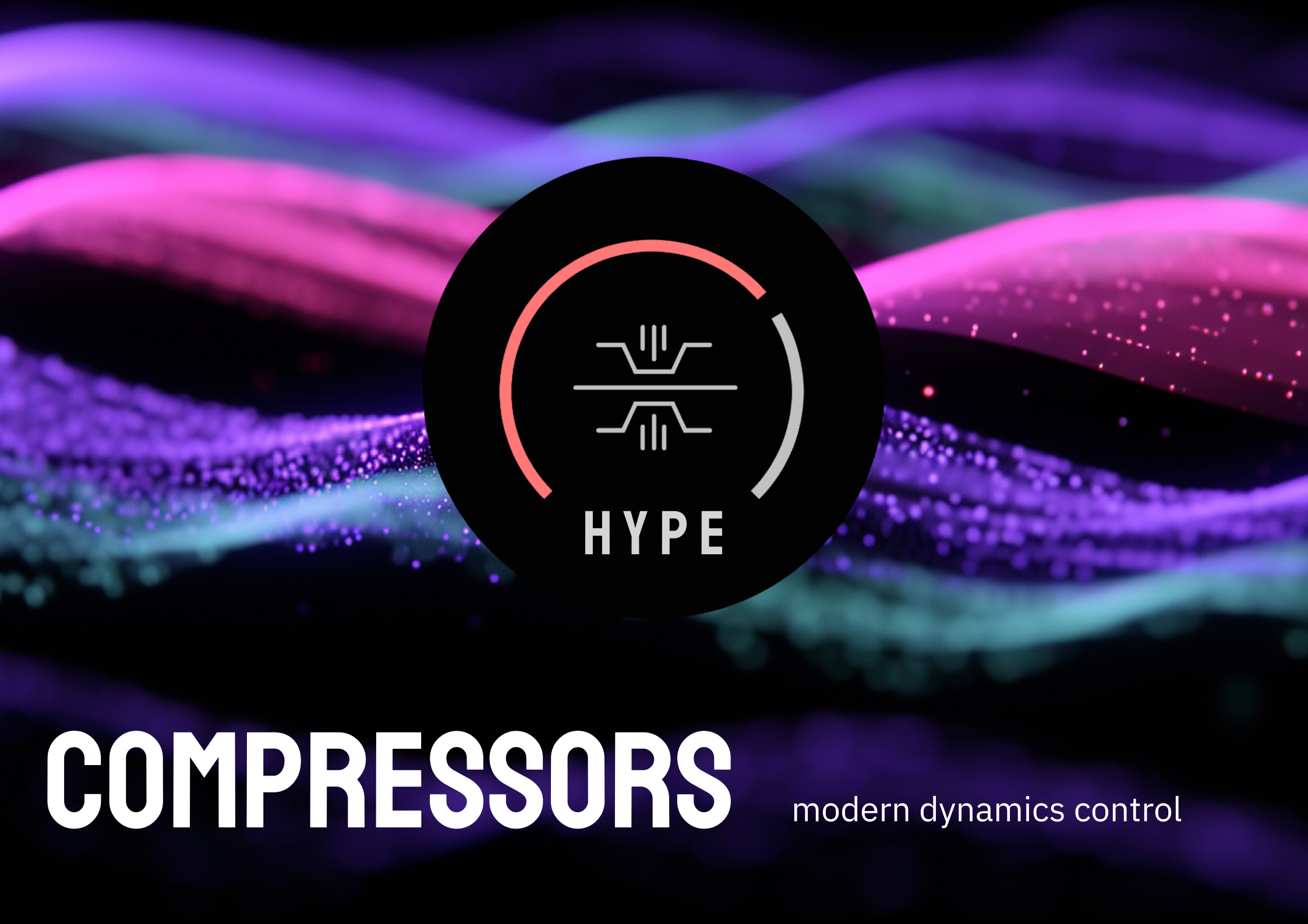
4 **Low Band Parameters :** Dial in the Wet and Dry

5 **Mid Band Parameters :** Dial in the Wet and Dry signals.

6 **High Band Parameters :** Dial in the Wet and Dry signals.

7 **Control mode Menu :** Select mode per band, just like the main menu, but just for this band. Mix up the styles to expand and reduce through different dimensions

8 **Toggle** Back to the Mix Panel to see Compressor and Harmonics knobs


HYPE
COMPRESSORS
modern dynamics control

HYPE is part of a growing family of movement in dynamics processing that allows for some truly revolutionary capabilities.

Instead of trying to emulate the cherished boxes of old, HYPE explores what is possible without the limitations of analogue circuitry.

Capabilities like true intelligent lookahead and instant attack times that do not cause distortion are the hallmarks of this modern sound.

Expect some terms to be familiar but don’t expect to find the same limitations you have put up with thus far.

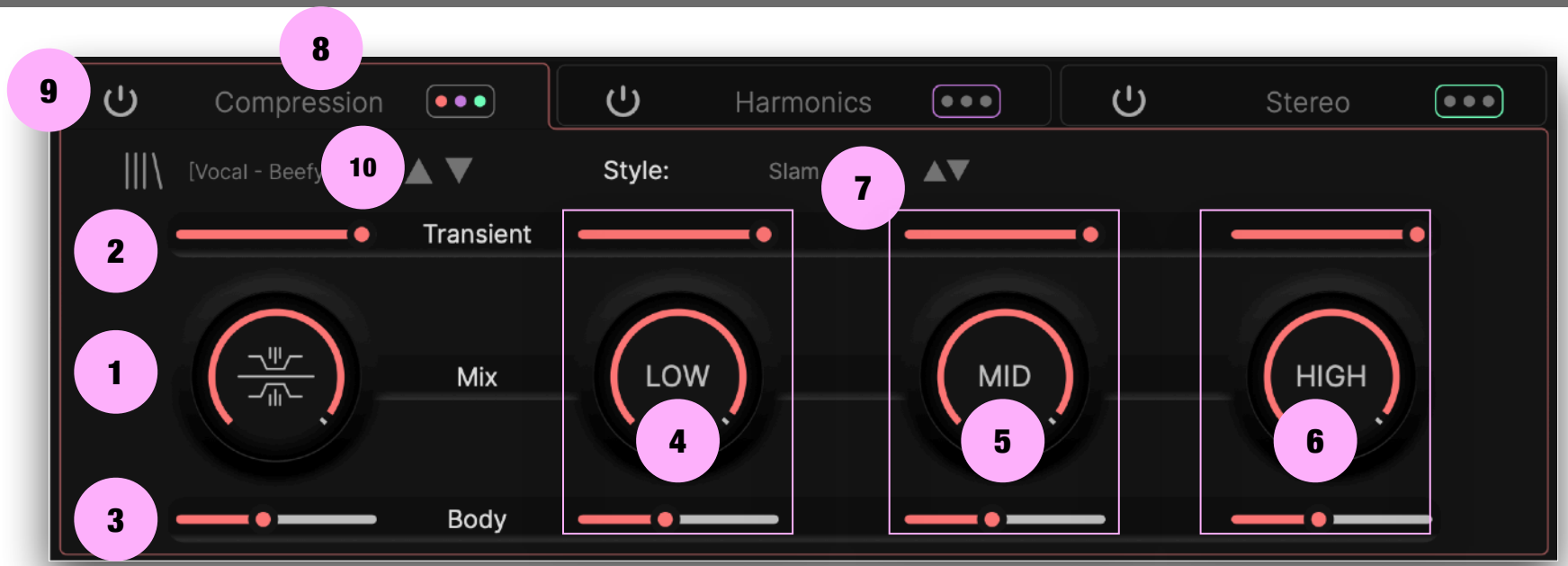
HYPE contains a number of carefully curated algorithms that take advantage of this new paradigm exposing the more imperative controls to the user.

COMPRESSORS

HYPE

modern dynamics control

Compressor Controls



1. **Mix AC :** Aggregate Control for All Bands
2. **Transient AC :** Aggregate Control for All Bands
3. **Body AC :** Aggregate Control for All Bands
4. **Low Band Parameters**
5. **Mid Band Parameters**
6. **High Band Parameters**
7. **Compressor Style Menu:** Click and hold for Menu, select from the list. Or just use the Browser buttons instead.
8. **Toggle** Back to the Mix Panel toHarmonics and Stereo Mix knobs.
9. **Bypass processing**
10. **Load or Browse module presets**

Compressor Modes

Slam is the most extreme of all the compressor modes.

It can also be very subtle and sublime, depends on how you want it.

Performing the Compressor equivalent of **tilt-shift**, where anything over the **Target** is squashed down towards the Target and everything underneath is pushed upwards in the same radical way.

The **Target** control sets the mid-point and is broadly the same as a threshold in this mode.

The **Body** control changes the tilt of this line simultaneously offering downwards and upwards compression.

The **Transient** control introduces a controlled lag, causing transients to spill through the compressor emphasising onsets in a controlled way

The leaked transients are then left to be caught by the **Final Clipper**.

Brick is based on an idealised brick-wall limiter with a modern pristine sound.

Signals are boosted into a **limiter** at up to +48dB.

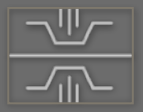
Target is the **limiter level.**
Set this to define where the limiting kicks in.

Squash is the amount of gain.
Use this to propel your signal at the **Target** level.

Transient is a spill control which is similar to the one in Slam, but uses a different algorithm to achieve a more percussive character.

This setting causes the **brick wall** to momentarily allow a signal at up to 6dB above the **Target** level

Compressor Modes



Combo

A three-way fusion of **Slam**, **Brick** and **Gate**.

The **Target** control sets the centre point for the **Slam** control and also directs the Gate.

The **Slam** control is equivalent to the **Body** control of a Slam processor with no transient leakage.

This signal is then sent to a gate set at 24dB below the target to mop up low level signals from room noise, to the very ends of reverb tails.

The **Brick** control directs both the **Squash** and **Transient** on a modified Brick algorithm.

The results of these two compressor detection circuits are then mixed to shape the result.

Gentle

The gentle algorithm is as it suggests the least radical option.

Instead of driving the signal towards barriers it applies a common and continuous curve that has no sudden changes in ratio.

Target defines the point of the curve where gain is un-altered everything over this is compressed down and everything under this is pushed up.

Compress defines the rate at which the curve alters above and below the **Target**.

Lift applies an additional (yet still gentle) boost to the lower-level sounds.

Ideally suited for small changes and mastering, **Gentle** is an elegant dynamics control mechanism for a more civilised age.

Compressor Modes



Gated

Gated Mode combines a pristine compressor with a noise gate.

Signal exceeding the **Target** is compressed downwards.

As the signal drops, it is reduced by a gradual **Gate**.

As well as a gradual close time, the **Gate** also reduces the volume based on the amount below the **Target**.

Target defines the point at which the compressor kicks in and also drives how much the **Gate** reduces signals at each point.

Push drives the signal into the compressor, increasing levels up to a point.

Gate defines the time that the **Gate** takes to close once the signal has dropped.

Opto

This mode offers a moderate compression aesthetic with a distinctive attack and release characteristic.

Through physical modelling, this mode allows the user to simulate classic opto compressors, including some with otherwise impossible configurations.

Target defines the point at which the detection circuit will cause gain reduction.

Transient – by modelling the thermal inertia of the light emitting section of an optical compressor we can change the attack and release behaviour. We literally change the bulb on your behalf.

Compress alter the compression applied above the threshold. Higher settings will have more noticeable effects.


HYPE
HARMONICS
no pain, no gain, just tone

The harmonic engine in HYPE uses advanced ADAA algorithms,
in tandem with UrsaDSP's Trajectory technology in order to achieve consistent harmonics with substantially reduced inharmonic content.

Unlike simple waveshapers, the ratio between the harmonics added will remain consistent as the signal level increases. This means it will always produce the entire series of harmonic overtones regardless of the signal level.
This allows us to add sparkle to quiet passages without it being driven to unwanted distortion as the track gets louder.

HARMONICS

HYPE

no pain, no gain, just tone

Harmonics Controls

1 The **Mix** control affects the wet / dry balance of harmonic content.

2 The **Intensity** slider is used to control how the harmonics are added relative to the input volume. At low Intensity, the volume of the harmonic series reacts dynamically to the input signal, quiet signals produce lower harmonic volume, while louder signals have louder harmonics.gets louder. At high Intensity the harmonic series is heard at a consistent volume, irrespective of the input level.

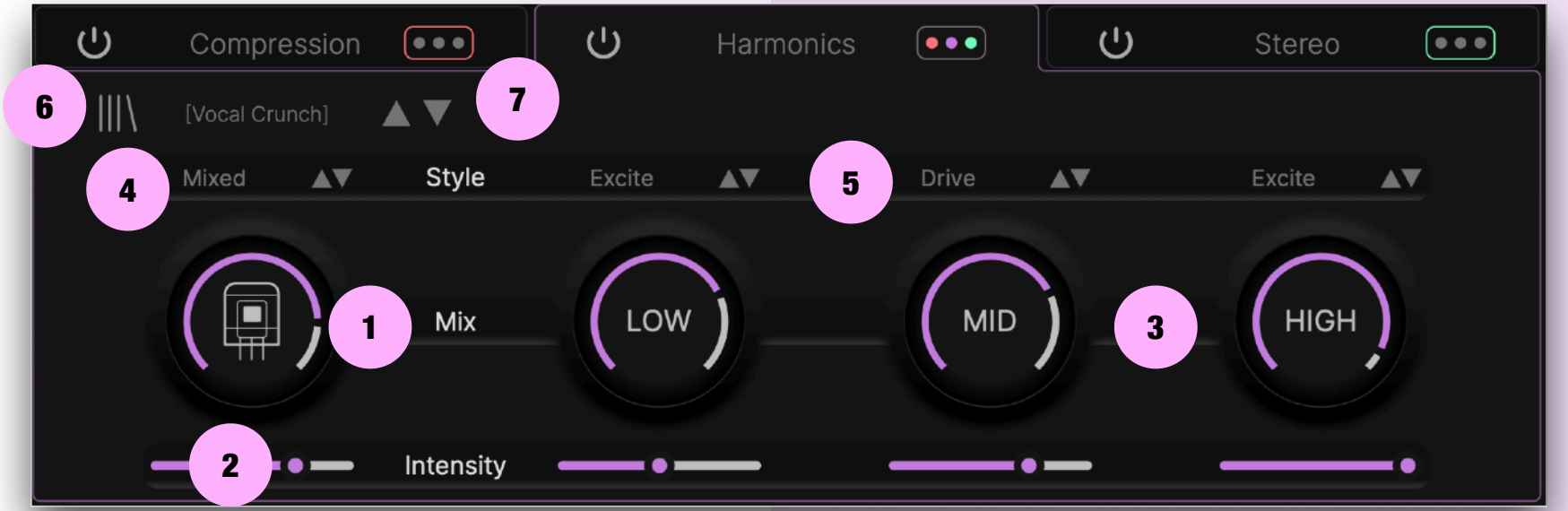
3 **Band Controls :** we can edit the parameters for a single band. Notice how when we tweak a band, it updates the main Aggregate Control (AC).

4 The **Mode** menu selects the Harmonic mode for all 3 bands, use this option when we want to set the same mode for all bands.

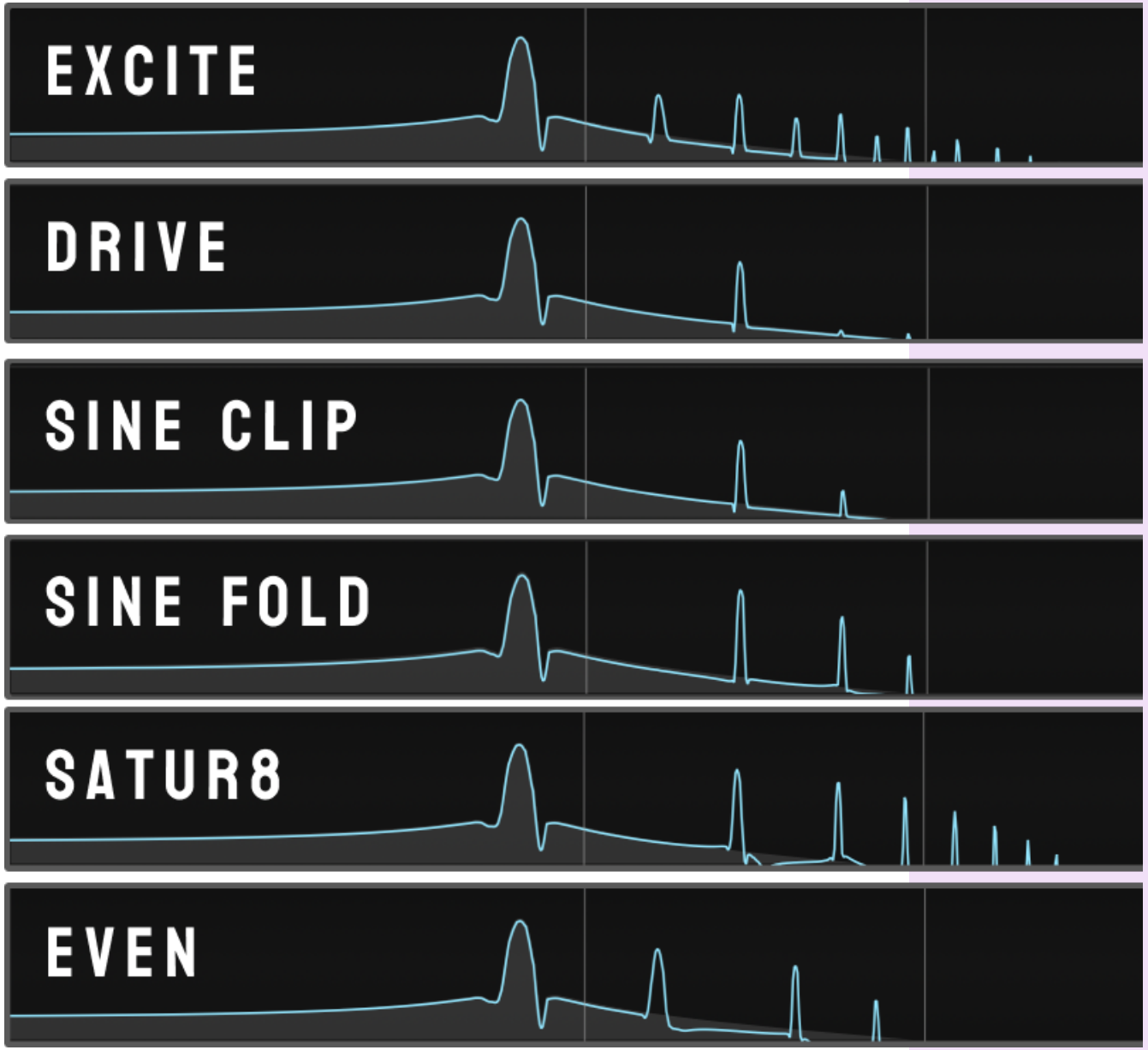
5 The The **Mode** menu selects the Harmonic mode for a single band, use this option when we want to set a unique Harmonics mode for a band.

6 Opens the Preset Menu to load the module settings from any preset.

7 Load Prev-Next module preset



Harmonics Modes



Excite
Smooth, even distribution of odd and even harmonics. Add subtle warmth and detail.

Drive
Simple, effective, odd order power

Sine Clip
Rich, vibrant colouration for synths

Sine Fold
The dirtier cousin of clip, the fold produces an extra spice of harmonic saturation.

Satur8
Our Tubiest offering. Saturate signals with a high order of richness and detail.

Even
Pure, even harmonics, especially awesome for adding girth and growl to low end subs, sine waves and 808s.


HYPE
STEREO MID-SIDE
It goes, where we tell it to

Stereo Mode - The Synergy

Since our minds are thinking and working in multi-band already, we can and should continue with this path, by taking control of the mid side for all 3 bands.
And while we are here, why not control the dry and wet signals independently as well?

Let’s design a fast and seamless way to switch between controlling anything and everything, whichever combination we need is readily available, no limits.

STEREO MID-SIDE

HYPE

It goes, where we tell it to

Stereo Mid-Side Processing

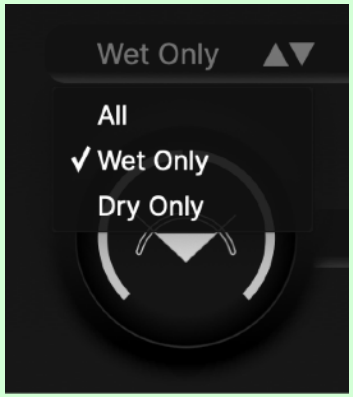
Select the control mode from the top menu, and use the **Width AC** to control all the bands in unison.

We can switch Control mode at any time from the menu, or use the browser buttons to select a particular combo.

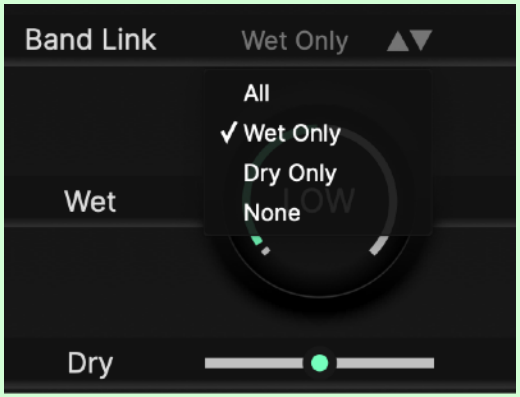
One second you are controlling just the **Wet** signal, then the **Dry**, then both by selecting **All.**

We can dive into a band to spread the spectrum.
If we like it, and don't wan't to touch it, we can un-link it from the AC knob by selecting **None** from the band menu.
This way we can us the AC to experiment with the other bands, without affecting the de-linked band. We can still tweak the de-linked band manually.

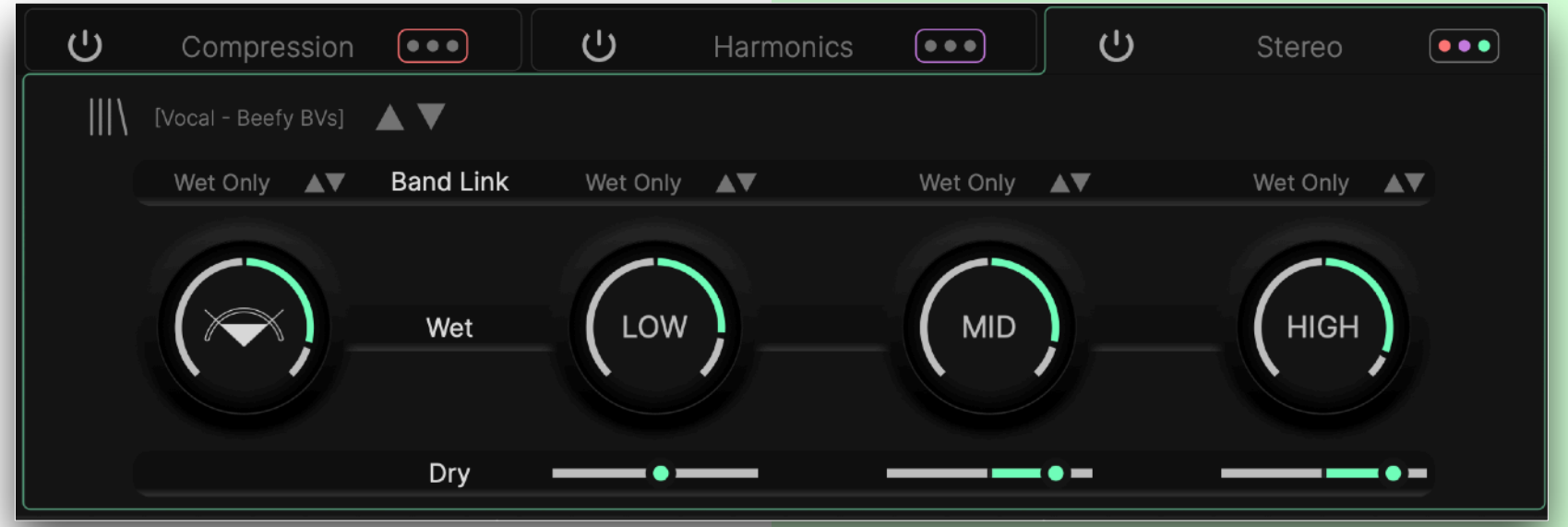
AC Menu Options



Single Band Menu Options



When different Control modes are selected for each band, the AC menu will display 'Mixed'.



Stereo Mid-Side Processing

1. The **Width** control affects the Mid / Side balance of each band.

2. **Dry Band Controls :** we can edit the parameters for a single band. Notice how when a band is linked we tweak it, this updates the value of the main Aggregate Control (AC).

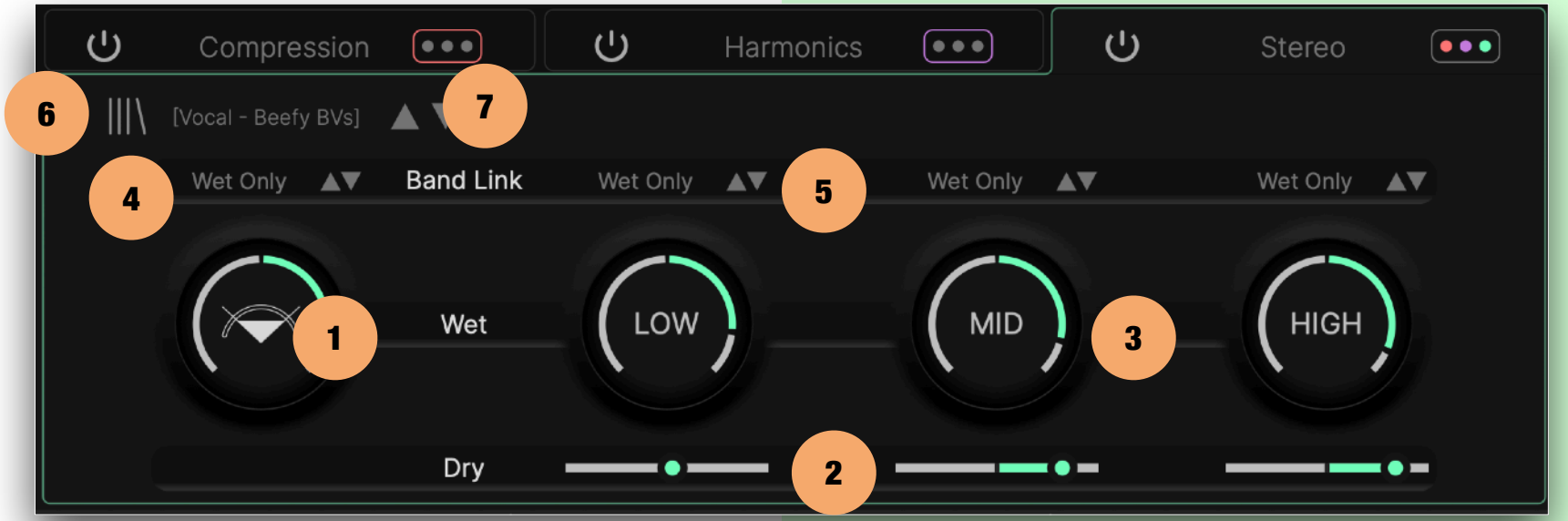
3. **Wet Band Controls :** we can edit the parameters for a single band. Notice how when we tweak a band, it updates the main Aggregate Control (AC).

4. The **Mode** menu selects the Control mode for all 3 bands, use this option when we want to set the same Control mode for all bands.

5. The **Mode** menu selects the Control mode for a single band. Use this option when we want to set a unique Control mode for a band. To un-link it from the AC control, select **None** from the menu.

6. Opens the Preset Menu to load the module settings from any preset.

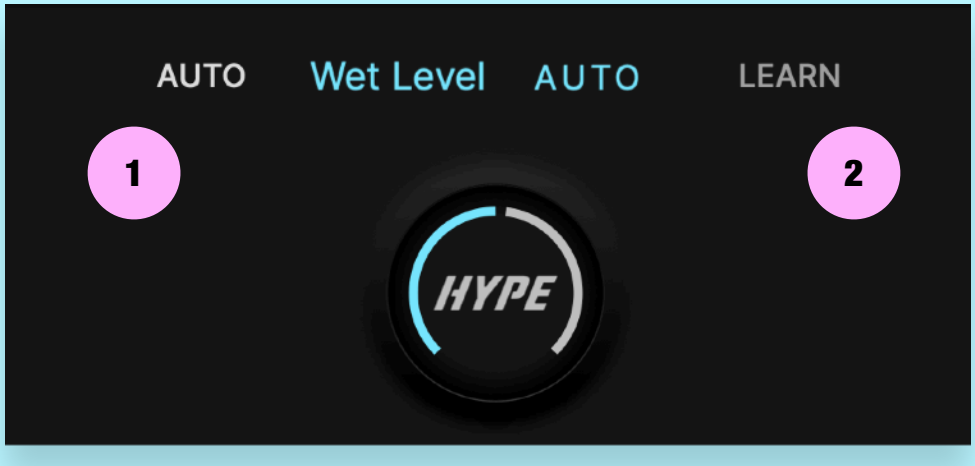
7. Load Prev-Next module preset



Auto Gain

Auto Gain is used to balance the level between the **Dry** and **Wet** signals so they are evenly matched.

Hype offers two ways to match the levels, **Auto** or **Learn**.



We recommend working in AUTO mode when browsing presets to avoid sudden changes in volume.

1 Full Auto Mode - Continuous Level Match

Toggle **Auto** to activate full Auto Gain, the Wet level display updates to display AUTO instead of a dB value. When Auto is active, Hype continuously adjusts the output as you tweak the controls. This works best when we operate Hype with a smooth, steady hand. This is also very useful when we have a good level in the mix and just want to play with the tone, texture and detail of a sound and not to

2 Learn Mode - Instant level Match

Learn mode is a momentary adjustment to update the wet level to match the dry level.
As we increase gain with the compressor, the wet level will increase and we can can be re-balanced by clicking the **Learn** button.

The wet level will update instantly and we should see a new value in the dB display.

Band Bypass and Solo

Bypass Band



1 Toggle the Power Icon to bypass the processing for any band.

This will **bypass** processing across all three modules. We can **bypass** any combination of the three bands.

2 We can also click (toggle) on a band range the spectrum to **bypass** processing. The spectrum band changes to a darker shade to indicate that it is bypassed.

3 The controls (knobs etc) for the bands which are bypassed are greyed out to indicate that they are not being used.

Solo Band



1 Toggle the **Solo** Icon to hear a band in isolation.

This solos the **Dry** and **Wet** streams.

We can **Solo** any combination of the three bands.

2 On the spectrum display, the bands which are muted change to a darker shade to indicate that they are muted.

3 The controls (knobs etc) for the bands which are muted are greyed out to indicate that they are not being used.

Aggregate Controls aka ACs

Most of the UI controls can be automated, with the exception of the **Aggregate Controls**.
This type of control is used for the module mix and the three multi-band controls.
Think of it as an assistant to help move all three multi-band controls in tandem, and not as an actual parameter itself.

A Word about ACs aka Aggregate controls
When you edit an AC control such as **Compression Mix**, it will write automation for the associated **Lo**, **Mid** and **Hi** band Controls.

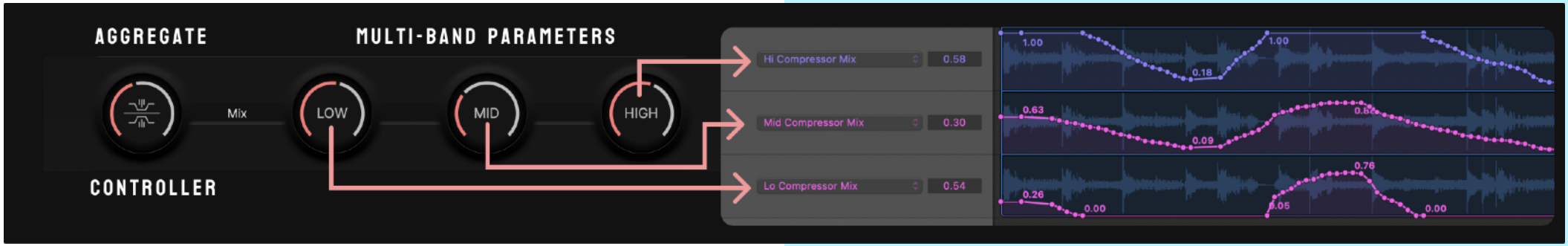
In the example below, we can see that automating the **Compressor Mix AC** control, will write Mix automation for each of the three individual bands.

Full list of Aggregate Controls

Compress Mix
Compress A
Compress B
Harmonics Mix
Harmonics A
Harmonics B
Stereo Width

But why can't we automate these knobs?

Because we can't automate both the AC and the multi band parameters, it would confuse the hell out of the plugin and cause a feedback loop, and nobody want's that.



Automation Parameters

Hype's parameters can be automated using the host DAW automation system. Check out the list —->

We can also use the DAWs automation system to assign parameters to a hardware controller.

Input Gain
Output Gain
Hype Mix
Tone
Target (Compressor Target)
Lo Split (Low X-Over)
Hi Split (High X-Over)
Lo Make Up Gain
Mid Make Up Gain
Hi Make Up Gain
Solo Lo
Solo Mid
Solo Hi
Lo Active (Toggle bypass)
Mid Active (Toggle bypass)
Hi Active (Toggle bypass)
Lo Compressor Mix
Mid Compressor Mix
Hi Compressor Mix
Lo Compressor A
Mid Compressor A
Hi Compressor A

Lo Compressor Mix
Mid Compressor Mix
Hi Compressor Mix
Lo Compressor A
Mid Compressor A
Hi Compressor A
Lo Compressor B
Mid Compressor B
Hi Compressor B
Lo Harmonics Mix
Mid Harmonics Mix
Hi Harmonics Mix
Lo Harmonics A
Mid Harmonics A
Hi Harmonics A
Lo Harmonics B
Mid Harmonics B
Hi Harmonics B
Lo Wet Width
Mid Wet Width
Mid Dry Width
Hi Wet Width
Lo Dry Width
Hi Dry Width