



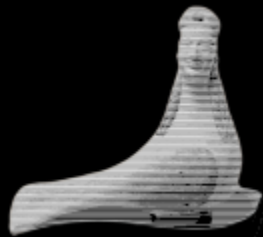
**P565**

**SIREN**

**User Guide**

**Version 3.0**

# Preface



Fabled tales are full of creatures that are a unification of beauty and beast, with none more alluring or captivating than the enticingly deadly Siren of Greek mythology. Sirens are half-bird, half-woman creatures whose seductive chants brought death and ruin to countless sailors. Something beautiful, mysterious and magical happens when the spirits held within separate entities are brought together as one. Such is the Pulsar Modular P565 Siren, the enchanting result of bringing together the essence of the smooth, ground-breaking UREI 565T Filter Set and the infinitely expressive Moog Ladder Filter.

As with all things Pulsar Modular however, that is just the beginning. The addition of unique signature analog drive and overdrive, a stepped filter switch that enables dub and reggae King Tubby Big Knob style and creative phase manipulation options including inversion and a wet signal delay rounds out this deep, beautiful sounding processor. P565 blurs the line between instrument and effect as it wraps itself in and around the source signal, sounding and feeling like it is part of it rather than affecting it externally. Our creative sides know what this means. It is very much like the difference between playing an instrument and an instrument being a natural extension and expression of who we are.

P565 is poised to be the professional audio engineer's most indispensable and special tool, providing a thoughtfully and carefully designed set of filters for equally effective use in both traditional applications and creative applications. From pristine vintage clarity and depth to creative modern expression and experimentation, P565 is breathtaking in its intuitive yet extensive capabilities.

Affectionately known as the Little Dipper, the UREI 565T Filter Set was originally introduced to the world as a high quality replacement for stock dip filters that were commonly available in the '70s. Featuring state of the art computer aided designed active filters, the unit was nothing short of space-aged, having the ability to do things that were not possible at the time with conventional designs such as removal of unwanted noise such as whistles and hums with never before heard extremely narrow bands of pristine filtering. It went on to not only be a crucial problem solver, but a creative tool allowing for nontraditional and radical phase sweeps with extreme tonality shift.

The Moog Ladder is extolled as a creative sound shaping and sculpting tool that can be used for anything from subtle analog filtering to bringing on the classic and sought-after Moog funk. At the creative heart of The Ladder is a loudness contour envelope follower that dynamically modulates a cutoff frequency, translating the incoming signal into a virtual studio assistant twisting and turning knobs to the groove of the song.

The sound and function of the Altec 9069B became a fundamental characteristic of dub in the '60s as King Tubby's prominently featured secret weapon. The 9068B and 9069B filter sets are beautiful sounding passive filters that are treasured by those who know and love them. The main characteristic feature of these filters is the stepped selection of cutoff frequencies. These filters can be used in static positions to eliminate unwanted frequencies, but they can also be used to perform extreme sweeps with ease and precision.

These, folks, are the precursors to all the freak-y, volcano-y, drop-y filters that are gracing the DAWs of today.

This truly mythical beast can go from finessing your audio like a sweet and subtle gentle lullaby to filling it with complex pulses and waves of infectious emotion. It is impossible not to become entranced by its spell.

Use the high pass, low pass or dual independent band reject/bell or notch/bandpass filters as pure filters or allow the music to influence their movement with the envelope follower. Use it for anything from subtle tonality shaping to crushing overdriven distortion or for creative modulation effects such as phasing, flanging and sweeping resonance effects. The choice is yours... or perhaps this is just what the Siren has entranced you to feel?

Ziad Sidawi  
Audio Equipment Designer & CEO  
Pulsar Novation LTD

Dry Polarity

Wet Polarity

**External Sidechain**  
 Enables external signal feed to the envelope followers

**OS – Oversampling**  
 Enables OS options (OFF, INTEL, VINTG or HD)

Preset Browser

**Step Filter**  
 Enables HPF/LPF King Tubby Big Knob style stepped filters

A/B Compare

**Options Menu**  
 About / License Status / User Guide / Options and Preferences

Bypass

**High Pass Filter Cluster**  
 HPF with slope, resonance and frequency controls. Operates in either continuous or stepped mode. Optionally dynamically influenced by the low frequency envelope follower.  
[See page 8](#)

**Notch / Peak Cluster**  
 One of two notch / peak filters that can be configured as reject / bell or notch / bandpass. Optionally dynamically influenced by the low frequency envelope follower.  
[See page 10.](#)

**LF Envelope Follower**  
 Tracks and responds to the incoming signal to dynamically adjust the filter cutoff or center frequency.  
[See page 13.](#)

**Low Pass Filter Cluster**  
 LPF with slope, resonance and frequency controls. Operates in either continuous or stepped mode. Optionally dynamically influenced by the high frequency envelope follower.  
[See page 15.](#)

**Notch / Peak Cluster**  
 One of two notch / peak filters that can be configured as reject / bell or notch / bandpass. Optionally dynamically influenced by the high frequency envelope follower.  
[See page 10](#)

**HF Envelope Follower**  
 Tracks and responds to the incoming signal to dynamically adjust the filter cutoff or center frequency.  
[See page 13.](#)

**Time Machine Circuit Cluster**  
 Delay and LFO options for creating delay, pitch and modulation effects.  
[See page 6.](#)


**Input / Output Cluster**  
 Features both clean and colorful gain staging options.  
[See page 19.](#)


**Central Cluster**  
 Options affecting the full signal or for changing how features operate.  
[See page 17.](#)

**Mix**  
 Blend signals to control intensity.  
[See page 19.](#)


**Save** – Saves the size and position of the current instance.




 Bypass allows the unaffected audio signal to pass through. When not bypassed, P565 Siren always imparts its alluring signature character by design.


 Wet polarity inverts the input signal so all internal processing is applied to the inverted signal.

 Dry polarity inverts the unaffected dry audio signal.


 The external sidechain button enables use of an external source as the signal feeding the envelope follower. Consult the documentation for your DAW for external routing options and instructions.


 Oversampling options allow P565 to optionally operate at a multiple of the host sample rate. With OS off, P565 operates with zero latency at the host sample rate (x1).

When oversampling is on, different options are made available. See the descriptions of INTEL mode, VINTG mode and HD mode below.

 INTEL (intelligent) mode operates at double the host sample rate (x2). It scans the full frequency spectrum and attenuates any aliasing signals. The amount of processing





applied by this advanced filtering is highly dependent on the signal and the degree to which P565 is being pushed.

 VINTG (vintage) mode operates at double the host sample rate (x2). It applies smooth filters to upper frequencies to maintain a classic rolled-off characteristic and allows any aliasing signals to remain unfiltered. This provides the ability to creatively combine a smooth, vintage top end with modern inharmonic distortion. This is most effective when oversampling at a 44.1 kHz or 48 kHz host sample rate.



 HD mode operates at an internal sample rate of 384 kHz. It utilizes the same full frequency scan filtering strategy as INTEL mode. The high sample rate and filtering mechanism make this a pristinely high-quality option at a surprisingly efficient CPU load. This mode is equally suitable for mastering duties or for key tracks when mixing.



To achieve HD oversampling, P565 applies the following logic:

- 44.1 and 48 kHz oversamples at x8
- 88.2 and 96 kHz oversamples at x4
- 176.4 and 192 kHz oversamples at x2, thereby enabling INTEL and VINTG options
- 384 kHz disables oversampling options

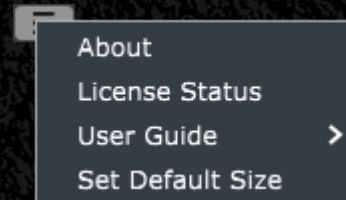
  Default   Browse, load and save presets using the Preset Browser. Save over the current preset by clicking the left save icon or create a new preset with the right save icon. A red asterisk\* will show up next to the left save icon to indicate the preset has been changed from its original parameters.

*Note: Modified factory presets will be overwritten when updating the software unless the install presets option is deselected. User created presets with different names than the provided preset names will not be replaced or deleted.*

  The step filter button converts the high pass and low pass filters from being continuously variable to being stepped. This enables additional creative options in the style of King Tubby's infamous Big Knob. Step filter mode is available for all dB/oct slopes.

  A/B allows for temporary storage of different settings for quick comparison. The arrow button allows for copying the active side to the inactive side.

*Tip: When comparing settings, clicking the A/B button will perform the toggle. This is a single button, so it is not necessary to move the mouse to alternate back and forth. This makes it easy to compare without knowing which one is selected. We recommend doing this with your eyes closed for maximum focus.*



#### Options Menu

About – Check the version number or demo expiration date.

License Status – Use this option to authorize or deauthorize your software. The internet is required for this action.

User Guide – Open the user guide.

Set Default Size – Saves the size of the current P565 GUI as the default size used when inserting new P565 instances.

## The Time Machine Circuit Cluster (TMCC)



**ON OFF** Activates the analog-behaving modulated delay circuit affectionately known as the TMCC. The circuit is ON by default with a DELAY of 0 ms and LFO parameters (RATE and DEPTH) set to 0 to maintain compatibility with earlier versions of P565 Siren.

**POST PRE** The TMCC can be applied before entering Siren (PRE) or after entering Siren (POST).

*Note: When PRE is selected, the TMCC is positioned before entering Siren; at this point, separate wet and dry signals do not yet exist. In practice, this means it operates on the raw signal, which is effectively the same as the dry signal. This distinction is crucial because it means the TMCC cannot apply to the wet signal when PRE is selected.*

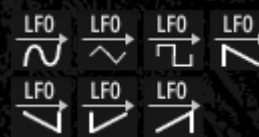
**WET DRY** The TMCC can be applied to the WET or DRY signal.

**WET** - This is the signal after being processed by all other P565 circuits, but not the TMCC itself.

**DRY** - This is the raw audio signal before entering P565.

**SMOOTH 100** The SMOOTH slider adjusts how quickly the DELAY circuit reacts to the LFO. At a setting of 0, DELAY is fully linked to the LFO speed. As SMOOTH is increased up to 100, the reaction slows, creating more texture as it increases.

**DELAY 0.0** Adjusts the DELAY slider from 0 ms to 99 ms.



The LFO Waveform Selector allows for cycling through a range of oscillation shapes. The LFO is applied to the DELAY circuit.

Left click cycles forward, right click cycles backward.

**RATE 0.00** Controls the speed of modulation, measured in Hz, with a range from 0 to 30 Hz. For example, 10 Hz equals 10 cycles per second. Lower values result in slower modulation and vice versa.

**DEPTH 0** Adjusts the amplitude of the LFO. This is expressed as a percentage ranging from 0% to 99%. A higher depth value results in a more pronounced pitching effect.



The Pulse Meter shows the combined effects of RATE and DEPTH applied to the LFO. The speed and

intensity of the modulation is shown in real-time, allowing for quick adjustments and fine-tuning.

**REGEN 0.0** The REGEN slider determines how much of the delayed signal is fed back into the delay line. Increasing REGEN causes echoes to repeat more times, creating a more intense effect.

**TIME 50** The TIME slider sets the interval, in milliseconds, ranging from 50 to 1000, between the original sound and the repeated echoes (REGEN). A shorter time will produce quick, slapback echoes, while a longer time will create more drawn-out, reverb-like echoes.

**GAIN 0.0** A gain slider with up to 12 dB can be applied to the delayed signal.

**BLEND 100** Blends the incoming WET or DRY signal with its modulated self, so WET (prior to SMOOTH) can be blended with the TMCC processed WET, or DRY with the TMCC processed DRY, as indicated by the connecting arrow. At 100%, the full TMCC signal is presented. Lowering the percentage blends in the incoming signal.

*Tip: When the TMCC is routing DRY, the delayed modulated dry signal is heard after the processed wet signal. Yes. Very cool.*

*Note: Please have a read over the Tips, Tricks and Techniques section of this user guide for ways to use the blending options that are available.*





The HPF SLOPE dB selector sets the slope of the cutoff frequency.

In addition to choosing the dB/oct slope, the SLOPE selection will also affect the RESONANCE characteristics and the Q values of the PEAK filters if they are engaged. See the RESONANCE and NOTCH/PEAK band filter selector documentation for details of these features.

The 12 dB/oct (2-pole), 24 dB/oct (4-pole) filters follow a familiar sound and design as indicated by the markings under their respective labels. The 18 dB/oct (3-pole) slope on the other hand is intended for more creative manipulation and features more radical Q values. These are simply intentions and not rules though – use your ears and choose whatever sounds best!



The HPF cutoff frequency knob sets the point from where the high pass filter starts working.

When in continuous mode, it features a frequency range of 20 Hz to 7.5 kHz.

When in stepped mode, the frequencies available are a nod to King Tubby's 9069B Big Knob.

If the envelope follower is engaged and the envelope follower routing knob is pointing to the HPF cutoff frequency knob, the LEDs will move counterclockwise or clockwise according to the parameters set in the envelope follower to indicate negative or positive cutoff frequency movement.

This filter can optionally be turned off using the red light beside the HPF label.



The HPF RESONANCE knob is used to either add positive feedback or to remove, flatten and smooth out the transition curve.

The default position has a Q of 0.707.

Increasing this value adds positive feedback that peaks at the HPF cutoff frequency, resulting in very rich harmonic behavior.

As the knob is turned clockwise from the default position, overtones, coloration and harmonic emphasis of the frequencies around the cutoff become increasingly audible.

As the knob is turned counterclockwise from the default position, the Q is decreased, resulting in a lessening of harmonic behavior and a perceptibly smoother and mellower curve.

*Note: When the resonance knob is turned to roughly 4/10 of the full range, it will begin to self-oscillate.*





The NOTCH/PEAK band filter RANGE selector allows a restricted range to be applied to the respective NOTCH/PEAK band filter frequency knob.

Enable or disable with the green light beside the RANGE label.

If disabled, the NOTCH/PEAK band filter has a full range of 20 Hz to 20 kHz.

If enabled, the following options and resulting frequency ranges are available:

- x1 = 20 Hz – 200 Hz
- x10 = 200 Hz – 2 kHz
- x100 = 2 kHz – 20 kHz

*Tip: Use the range selector for narrowing the frequency selection range when creating sweeping effects if fine control over the selected frequency is desired.*

*Note: There are two instances of the band filter and associated controls, each having identical functionality.*



The NOTCH/PEAK band filter frequency knob sets the center point of the selected filter.

The type of NOTCH filter or type of PEAK filter is selected using the NOTCH/PEAK band filter selector.

See the NOTCH/PEAK band filter selector for details on choosing the filter style and shape.

The range for the continuously variable frequency selection is determined by the NOTCH/PEAK band filter RANGE selector. The default range is 20 Hz to 20 kHz. See the NOTCH/PEAK band filter RANGE selector for details on restricting the range.

If the envelope follower is engaged and the envelope follower routing knob is pointing to the NOTCH/PEAK band filter frequency knob, the LEDs will move counterclockwise or clockwise according to the parameters set in the envelope follower to indicate negative or positive center point frequency movement.



The switchable NOTCH/PEAK band filter selector allows for choice from three notch filters and three bandpass peak

filters.

Click the label to switch between complementary REJECT/BELL (band reject/bell) or NOTCH/BPF (notch/bandpass filter) types.

Enable or disable with the green light below the NOTCH/PEAK label.

The combinations of band reject with bell and notch with bandpass are designed to be complementary filter type selections.

- The band reject filter attenuates frequencies to very low levels around a center point.
- The bell filter boosts a set of frequencies around a center point.
- The notch filter is a much narrow form of a reject filter.
- The bandpass filter allows only the set of frequencies around a center point to pass.

The Q values of the filters are dependent on and complimentary to the selected HPF/LPF slope.

- When 12 is selected:
  - SClockwise, beginning from the far left, the band reject filters are 0.667, 1.414 and 2.871 Q.
  - Clockwise, beginning from the far left, the notch filters are 8, 4 and 1.4 Q.
  - Counterclockwise, beginning from the far right, the bell and bandpass filters are 8.5, 3.3 and 0.9 Q.
- When 24 is selected:
  - Clockwise, beginning from the far left, the band reject filters are 1.111, 2.355 and 4.783 Q.
  - Clockwise, beginning from the far left, the notch filters are 15, 5 and 3 Q.
  - Counterclockwise, beginning from the far right, the bell and bandpass filters are 15, 6.6 and 1.8 Q.
- When 18 is selected:
  - Clockwise, beginning from the far left, the band reject filters are 0.889, 1.884 and 3.827 Q.
  - Clockwise, beginning from the far left, the notch filters are 20, 10 and 2 Q.



- Counterclockwise, beginning from the far right, the bell and bandpass filters are 10, 5 and 1.2 Q.

*Note: The NOTCH/PEAK bell and bandpass filters are reduced by half the original Q (becoming wider) when MU is enabled from the help menu. The band reject and notch filters are unaffected by MU.*





The envelope follower routing knob determines which of the filters are affected by the envelope follower.

Point the routing knob towards the HPF/LPF cutoff filter to have the envelope follower dynamically influence the frequency of that cutoff filter.

Point the routing knob towards the NOTCH/PEAK band filter frequency knob to have the envelope follower dynamically influence the center point of that filter.



The envelope follower extends the filtering capabilities of either the cutoff frequency, resonance and slope or the NOTCH/PEAK band filter, turning these into dynamic filters.

Enable or disable with the pink light above the ENV 1 or ENV 2 label.

The envelope follower tracks the loudness contour of the incoming signal, producing a voltage that follows the dynamics of the signal. This voltage affects the position of

the cutoff or center frequency of the selected filter, resulting in interesting and very musical dynamic filter effects.

When AMOUNT is negative, the follower will dynamically decrease the cutoff or center frequency. When the AMOUNT is positive, the follower will dynamically increase the cutoff frequency. At 0, it has no effect.

ATTACK determines how quickly the envelope follower responds to the incoming audio and RELEASE determines how quickly the envelope follower's release responds to the audio. ATTACK and RELEASE times are fastest at the 0 position.

LEVEL adjusts the dynamic range of the signal hitting the envelope follower. This results in increased or decreased envelope movement.

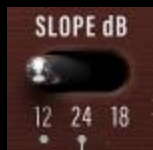
*Tip: With AMOUNT set to a non-0 position, turn the LEVEL trim pot counterclockwise until the light trails of the routed frequency knob are no longer moving. From that point, turn the trim pot clockwise until the lights are dancing as much or as little as desired and your ears are hearing the most pleasing effect on the tone. This is particularly effective when MU mode is engaged, but it can (and maybe should) be used all the time.*

SPEED influences the rate at which the cutoff or center frequency changes within the range imposed by AMOUNT and subject to ATTACK and RELEASE characteristics. Available selections are slow (I), medium (II) and fast (III). Each setting introduces different musical colors and movement.

*Tip: To gain a practical understanding of SPEED, do the following: Enable ENV 2, point the envelope follower routing knob to LPF, select SPEED I and set AMOUNT to 0. Quickly move the LPF knob and observe how the lights trail the frequency selection, illustrating a slow rate of change. Now select SPEED III and move the LPF knob in the same way to observe a fast rate of change.*

*Tip: Check out the Tips, Tricks and Techniques section for MU and LEVEL tips!*

*Note: The envelope follower is based on the RMS of the sound being processed. Changing parameters such as cutoff frequency or range will affect what is processed. This, along with the effects of the envelope parameters themselves, is reflected in the behavior of the ring LED lights as shown either around the HPF/LPF cutoff frequency knob or the NOTCH/PEAK band filter frequency knob.*



The LPF SLOPE dB selector sets the slope. In addition to choosing the dB/oct slope, the SLOPE selection will also affect the RESONANCE characteristics and the Q values

of the PEAK filters if they are engaged. See the RESONANCE and NOTCH/PEAK band filter selector documentation for details of these features.

The 12 dB/oct (2-pole), 24 dB/oct (4-pole) filters follow a familiar sound and design as indicated by the markings under their respective labels. The 18 dB/oct (3-pole) slope on the other hand is intended for more creative manipulation and features more radical Q values. These are simply intentions and not rules though – use your ears and choose whatever sounds best!



The LPF cutoff frequency knob sets the point from where the low pass filter starts working.

When in continuous mode, it features a frequency range of 40 Hz to 20 kHz at 44.1 kHz sample rate, 40 Hz to 22 kHz at 48 kHz sample rate or 40 Hz to 24 kHz at higher sample rates.

When in stepped mode, available frequencies are based on the 9068B (the ‘other half’ of King Tubby’s famed secret weapon).

If the envelope follower is engaged and the envelope follower routing knob is pointing to the LPF cutoff frequency knob, the LEDs will move counterclockwise or clockwise according to the parameters set in the envelope follower to indicate negative or positive cutoff frequency movement.



Click on the label to switch between the default signature low pass filter (LPF) and an alternate topology filter (ALT LPF).

LPF allows for dB/oct slope adjustment. This filter is slightly more aggressive and slightly more colorful than ALT LPF.

ALT LPF disables the ability to adjust dB/oct slope. This filter features a 24 dB/oct slope with a beautifully smooth character that belies the steepness of the slope. Additionally, when ALT LPF is selected, a 6 dB/oct HPF is applied at 10 Hz. Enabling the HPF will override this behavior.



This filter can optionally be turned off using the blue light beside the LPF label.



The LPF RESONANCE knob is used to either add positive feedback or to remove, flatten and smooth out the transition curve.

The default position has a Q of 0.707.

Increasing this value adds positive feedback that peaks at the LPF cutoff frequency, resulting in very rich harmonic behavior.

As the knob is turned clockwise from the default position, overtones, coloration and harmonic emphasis of the frequencies around the cutoff become increasingly audible.

As the knob is turned counterclockwise from the default position, the Q is decreased, resulting in a lessening of harmonic behavior and a perceptibly smoother and mellower curve.

*Note: When the resonance knob is turned to roughly 4/10 of the full range, it will begin to self-oscillate.*



The mu egg engages the Mu-Tron envelope follower.

This mode alters the default envelope following behavior in such a way that it hugs and caresses the tracked signal. It produces an almost vowel-like funky sensation in the resulting sounds. We affectionately refer to what we hear coming out the other end as 'the quack'.

*Tip: Using your ears while adjusting the LEVEL trim pot is critical (and so much fun) when experimenting with the MU switch.*

*Tip: Check out the Tips, Tricks and Techniques section for MU and LEVEL tips!*

*Note: The NOTCH/PEAK bell and bandpass filters are reduced by half the original Q (becoming wider) when MU is enabled. The band reject and notch filters are unaffected by MU.*



The CLIP indicator light shows when clipping is occurring. The clipper is the last circuit before audio leaves (after MAIN OUT).

Siren can be driven into clipping in different ways. As one example, when the RESONANCE knobs are turned roughly

4/10 of the full range, they will begin to self-oscillate. This can produce high amplitude high or low frequencies either in audible or inaudible ranges. As another example, simply increasing the transformer coupled gain using the OUTPUT knob can result in clipping.



The DRIVE knob produces a pleasing crunchy analog filter distortion.

Set the PRE/POST switch to PRE to position DRIVE prior to all filters.

Set the PRE/POST switch to POST to position DRIVE after all filters.



OVERDRIVE. We couldn't decide what to call this. Some wanted to call it the GO NUTS button. Some simply wanted to call it VICIOUS. There was even someone who didn't think it needed a name but wanted it to go to 200 (that is a full 189 past 11, there Nigel)! We settled on OVERDRIVE.

You can call it whatever you want, just use it with care... everywhere.

Choose the original OVERDRIVE or the alternative HYPERDRIVE option by clicking on the label. OVERDRIVE is the brutal overdrive that initially shocked the audio world with unrelenting ferocity. HYPERDRIVE is just ever so slightly less aggressive, allowing more transients to pass through, making it a little more articulate and detailed than the original.

*Tip: Try adjusting the signal level going into Siren and enjoy how the overdrive circuit reacts to the input signal level. By doing this, you too can turn this raging mythical beast into a... slightly less raging mythical beast. Seriously, you can't tame it, but you sure can have fun trying.*



The POWER button is synchronized with the bypass button on the main toolbar. When disabled, it allows the unaffected audio signal to pass through. When powered on, P565 Siren always imparts its alluring signature character by design.



The OUTPUT knob features transformer coupled gain. The output of this stage feeds into the MIX knob.



The BIAS trim pot influences how Siren reacts to the input level in a non-linear fashion. Pushing BIAS by turning clockwise drives the internal circuitry for a more aggressive, forward and pushed tone. Pulling BIAS by turning counterclockwise promotes additional headroom and a more relaxed sense of depth and clarity.

*Tip: This works especially well in tandem with the DRIVE circuit. Experiment with offsetting these controls by increasing DRIVE while decreasing BIAS or vice-versa*



The MAIN OUT trim pot features -12 dB to 12 dB of clean gain. This allows the combined wet and dry final output signal to be cleanly increased or decreased.



The MIX knob allows for blending a desired amount of dry signal in with the processed wet signal.



## Tips, Tricks and Techniques

### **.: Phasing and comb filtering for fun and profit... and butter :.**

*P565 Siren can be used to create beautiful phasing and comb filtering effects using the wet signal delay and/or the wet polarity inversion button.*

*For an effect that is more or less like melted butter, engage the wet polarity inversion button, engage a wide peak band filter option (or two), engage the envelope follower, adjust it to get a groovy movement happening and start delaying the signal using the delay slider. Adjust the MIX knob to taste. Pour it all over your popcorn and enjoy. [ZS]*

### **.: Bandpass to isolate and pinpoint frequencies for bell or notch filters... and then some :.**

*In addition to using bandpass filters for creating otherworldly effects, they can be used for what they were originally intended for, strangely enough! Use a bandpass, for example, to pinpoint the smack of a snare. Once you find that area, switch to a bell and enjoy the nicely accentuated smack. As another example, use a bandpass in the same way to pinpoint a resonance in an acoustic guitar, then switch to a notch to clean it up.*

*If the bell or notch is not exactly what you were envisioning, think creatively about how to use Siren to perform more subtle moves and maybe even gain new techniques on your own. Say for example, the amplitude of the bell is not as subtle as you wanted. Try adjusting the MIX knob to blend the bell in with the dry signal. Not only does this make the move more subtle, it introduces some depth and dimension. You could stop here, but why not explore a little? For even more dimension, try adjusting the wet delay a little bit as well. When using the wet delay, listen carefully to the imaging and solidity of the signal that is being adjusted. You are listening for a barely perceptible separation between the wet and dry signals which imparts depth, but you don't want to introduce filtering that clouds the imaging... or do you? Maybe you just discovered something unexpectedly interesting and welcome? [ZS, KE]*

## **.: Keep both hands on the wheel when in overdrive .:**

*Overdrive can be a bit of an unbridled beast. While on some sources, it will be just what is needed out of the (in the) box, on other sources it will simply maim and destroy the source signal. Don't be too quick to put the brakes on when this is the case though. If OVERDRIVE is annihilating the underlying audio just wait... leave it like that for a few minutes and dial in appropriate LPF, HPF to focus an area, then adjust the DRIVE to contour the chaos. At this point, it still may sound like the inside of a volcano... but now, adjust the MIX to turn this into a parallel crushed effect that can be even automated on and off at different times to keep the listener interested with new and different textures.*

*This is a plugin that begs for experimentation. [KE]*

## **.: Shoot your TB303 into other spheres - Overdrive for the ultra-modern sound .:**

*Here is yet another of the many possible uses OVERDRIVE is made for. Do you want to send the kids of the moshpits to nirvana with your TB303-heavy track? Then do the following. Focus on a nice and crisp frequency range with HPF and LPF. Exact values should of course always depend on your mix, but for HPF starting frequencies around 200-300 Hz are suitable and for LPF the range around 800 Hz works effectively. Now thicken both filters with some RESONANCE, add until it tastes great for your ears.*

*Give the LPF some extra life with a positive value by the Envelope Follower. Turn DRIVE afterwards to about 25-30%, set POST and finally press OVERDRIVE: duck!...3...2...1...the rocket starts. MIX should hardly let any dry signal through. With a value of only about 10% DRY, this is where the fun really begins. Does TB303 actually go even creakier? Also play with the filter slopes. 18 dB breathes a scratchy, smoky James Brown character into the signal and 24 dB makes the sound endlessly punchy. A combination of 18 dB for the HPF and 24 dB for the LPF also works very well. Please experiment to your heart's content. Let off steam and playfully explore the sheer endless possibilities of transforming a sound with the Siren. [MK]*

## **.: Get on the pitch carousel :.**

*The DELAY slider doesn't need to be stuck in a static existence. In addition, this circuit creates a pitch shift in live performance. And this is how you push the merry-go-round... First turn the MIX knob to 100% WET if TMCC is set to WET or anywhere less than 100% WET if TMCC is set to DRY and while you play your audio, turn the DELAY trim pot to your heart's content. Slow, fast... back and forth, try them all and listen closely to the tonal changes that occur. It takes a little while for the actual new setting to "snap into place" and it is precisely this period of time between 2 different values that you make use of. Perfect for DAW automation. In this way, incredibly lively modulations or cool special effects can be created on any type of sound material. My favorite so far are modulations on long sustain phases, for example on an 808, other distorted sounds and creaky synth bass lines. Turn Siren into an off-kilter punk queen with a loose screw. [MK]*

## **.: Everything You Always Wanted to Know About MU\* (\*But Were Afraid To Ask) :.**

*The MU option in the help menu is optimized for electric guitar and electric bass guitar (\*but not exclusively – see below). The key is the LEVEL trim pot. As LEVEL is increased, the original sound will become more contained and resonance will 'jump around' less. LEVEL controls the dynamic range the envelope follower is listening to. Increasing LEVEL decreases the dynamic range which results in the envelope follower fluctuating the filter in a more consistent way for both high and low volume input. In a practical sense, this affects the consistency of the 'quack' sounds, particularly when there is a big difference in strumming.*

*As mentioned above, MU is not exclusive to guitars and bass despite being optimized for them! Let's say you have a live drum track and you have Siren using a high resonance setting. If the resonance on the snare is fluctuating too much due to being hit at different dynamic levels, enabling MU and dialing in the sweet spot using the LEVEL trim pot will smooth out the filter behavior. [ZS]*

**.: Balance is not something you find, it is something you create... with MIX knobs and sliders :.**

*With the MIX knob set fully counterclockwise to WET (0% Dry), you can create a delay between the P565 processed sound (wet) and the delayed modulated signal. Use the MIX slider to adjust the intensity of the delay. Furthermore, you can have the delayed modulated signal higher in volume than the wet.*

*Generally speaking, with virtually every delay available, the dry sound is heard first followed by the delayed processed sound. What if you want to play the P565 processed signal (wet) FIRST and then play a delayed dry signal? You can switch the delay circuit to DRY and now the MIX slider is blending modulated dry with dry. With the main MIX knob now you can blend wet/dry. Since the dry signal is now being delayed, the wet signal will play first. For example HPF a sound and add some nice resonance. This sound plays first then the dry modulated signal players after. Interesting sound design! [ZS]*





# Managing Presets

## Basics

If the option to install presets is not deselected during installation, the installer will overwrite the factory presets. User created presets will remain unaltered. To safeguard any modifications made to factory presets and preserve them during an update, make sure to deselect the install presets option when running the installer. Also, remember to save your own presets with different names using the 'save as' option located to the right of the preset browser.

## Backing Up Presets

Presets can be backed up and restored using your operating system file manager. Simply perform a copy/paste of either individual preset files or the full presets folder to a backup location of your choosing. The presets folder can be found in the following locations:

### For Windows

'C:\Users\Public\Documents\Pulsar Modular\P565 Siren\Presets'

### For macOS

'/Users/Shared/Pulsar Modular/P565 Siren/Presets'

## Special Edition Presets

Special thanks to Cryss Synthient for providing the following custom presets with descriptions and suggested uses.

.: Bad Trip Delay - Trippy delay for any instrument. Play with your input level as lower levels will make it darker and hotter will make it brighter. Lower levels are great for a more ambient sound. Use MIX to control wet/dry of the delay.

.: Call Me Back - Very modulated delay. Play softly into it allowing the trippy overtones to percolate as you sustain a chord. Use MIX to control wet/dry of the delay.

.: Churning Chorus - Altered sawtooth wave chorusing. Try with a clean guitar track or keys. Adjust RATE to fit tempo of song. Use MIX to control wet/dry of the chorus.

.: Good Vibes - Moderately fast chorusing. Try with a clean guitar track. Use MIX to control wet/dry of the delay and try MIX 100% wet for vibrato. Use for “Don’t Cha Stop” by The Cars type of vibe.

.: Lush Chorus Delay - Get your 1980s guitar and synth vibes on. Use MIX to control wet/dry of the delay.

.: Mistress Siren - Deep swooshy chorus/flange much like you get from an old EHX Electric Mistress. Try for your Police guitar tones. Bring REGEN up for some added delay (try 0.7).

.: Multihead Echo - You know that rockabilly tape echo that fills your brain with seltzer? Use MIX to control wet/dry of the delay.

.: Multihead LoFi Echo - You know that rockabilly tape echo that fills your brain with seltzer? This one affects your dry tone too - run on your guitar before your amp sim. Use BLEND to control wet/dry of the delay.

.: Psychedelic Springs - Somewhere between slapback echo, spring reverb and a tripped-out modulation. Great for percussive clean guitar. Use MIX to control wet/dry of the springs.

.: Rack Mount Chorus - Another 1980s guitar and synth chorus, but smooth and lush. Use MIX to control wet/dry of the chorus.

.: Screams and Drones - A throbbing low toned drone until you hit the input which causes a horror scream. Check input levels to dial in the scream. If it only “screams”, lower your input level or adjust ENV amounts down.

.: Slipping Below Waves - Adjust ENV 2 Level for brightness and let the delay ring out as the filter slowly closes with every wave. Try with a big ambient stereo reverb after.

.: Submerging - Similar to “Slipping Below Waves” but more intense. Adjust ENV levels for your preferred tonality. Follow with ambient stereo reverb and let go.

.: Vibra Room and Vibra Room 2 - Vibratone-like, fast chorusing with a short delay for a room slap. Drop REGEN to 0 to remove “room” sound and just have the rotary type modulation.

# General

## Mouse and Key Modifiers

### Fine adjustment of knobs, sliders and other controls

Press and hold control (^) on macOS or CTRL on Windows, then left click and drag. Alternatively, right click and drag without a key modifier.

### Return controls to their default state

Press option (⌘) on macOS or ALT on Windows and left click. Alternatively, double-click without a key modifier.

### Enable parameters for automation (Pro Tools only)

Press control + command + option (^ + ⌘ + ⌘) on macOS or CTRL + ALT + START (⏻) on Windows.

## Uninstalling P565 Siren

### For Windows

- VST3: In 'C:\Program Files\Common Files\VST3', locate the 'P565 Siren.vst3' file and delete it.
- AAX: In 'C:\Program Files\Common Files\Avid\Audio\Plug-Ins', locate the 'P565 Siren.aaxplugin' folder and delete it.
- Shared: In 'C:\Users\Public\Documents\Pulsar Modular', locate the 'P565 Siren' folder and delete it. This folder contains the user guide and presets. If no other folders exist under 'Pulsar Modular', this can be deleted as well.

### For macOS

- AU : In '/Library/Audio/Plug-Ins/Components', locate the 'P565 Siren.component' file and delete it.
- VST3: In '/Library/Audio/Plug-Ins/VST3', locate the 'P565 Siren.vst3' file and delete it.
- AAX: In '/Library/Application Support/Avid/Audio/Plug-Ins', locate the 'P565 Siren.aaxplugin' folder and delete it.
- Shared: In '/Users/Shared/Pulsar Modular', locate the 'P565 Siren' folder and delete it. This folder contains the user guide and presets. If no other folders exist under 'Pulsar Modular', this can be deleted as well.

## Restrictions

The USER may not reverse engineer, disassemble, re-sample, create Impulse Response profiles or re-record, decompile, modify, alter in whole or in part PULSAR NOVATION LTD audio plugins for the intent of renting, leasing, distributing, repackaging (whether for profit or not).



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GUI Development: Max Ponomaryov / azzimov GUI design – [www.behance.net/azzimov](http://www.behance.net/azzimov)  
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