



This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

# TONAL RECALL INSTRUCTIONS



DIGITAL BRAIN. ANALOG HEART.®

## **OVERVIEW**

Forget everything you know about analog delay, this one's different. Built around a pair of re-issued versions of the legendary MN3005 bucket-brigade delay chips, the unmistakable analog character of this delay is front and center along with its velvety tape-like modulation. Tonal Recall expands upon the classic vintage sounds associated with analog delays of yesteryear while bringing modern amenities such as tap tempo, optional bypass with trails, expression control over any parameter, and the ability to save presets. Every knob and switch is connected to a little digital brain while your guitar signal stays 100% analog and never gets digitally processed. Since the control of the effect is digital, it opens up unprecedented effects and features that have never been heard or offered in analog stompboxes.

# TONE (RAMP)

Simply put, this is a magical knob. When you don't have any dip switches assigned for ramping, this knob functions as low-pass tone filter for the repeats of the delay. Completely clockwise is slightly brighter than your average analog delay (still dark), and completely counterclockwise is black-out murk oil delay darkness. The pedal is able to compensate for some of the natural attenuation that happens as the tone rolls off by boosting the delay signal according to where the tone is set. In regards to the ramping functionality, due to the digital control of this pedal you can set this knob to control any of the five parameters individually or simultaneously (mix, rate, time, regen, depth) and have it either modulate or rampand-hold (rise or fall) via dip switches in the back of the pedal. Essentially, this knob controls the ramp time in which this takes place.

#### MIX

Sets the mix between dry, unaffected signal and the delay's repeats. Completely clockwise is 100% wet, full delay path, and in this scenario the signal will be boosted. This allows for a better mix when the dry signal is mixed in. Completely counter-clockwise is 100% dry. With the knob roughly 75% clockwise, you get a 50/50 wet/dry mix.

## **RATE**

Sets the rate of the LFO (low frequency oscillator) for the pitch modulation on the repeats. Clockwise for fast modulation, counter-clockwise for slow modulation.

## TIME

Controls the length of the delay. Clockwise for increased

delay time (max 550ms) and counterclockwise for decreased delay time. This control is over-ridden by the tap tempo switch.

## NOTE DIVISION TOGGLE

Controls the tap division for tap tempo in regards to delay length, with the assumption that the user is tapping on quarter notes. A dip switch in the back of the pedal lets you access the divisions in the parenthetical if you so desire. You can also select tap divisions for ramping parameters dependent on where the "tap control" dip switch is set. Note that divisions are 2x slower for ramping.

## **REGEN**

This controls the amount of repeats on the delay. If set carefully, it can regenerate seemingly forever, and can also regenerate into self-oscillating madness. The longer that a delay is regenerated, it will eventually devolve into a beautiful, smeary, tape-saturated blur.

## **DEPTH**

This controls the intensity of the pitch modulation on the repeats.

#### S/L/BTOGGLE

This controls how many Xvive MN3005 delay chips your delayed signal will pass through. S stands for "short" (1 MN3005, 20ms to 275ms delay), L stands for "long" (2 MN3005, 40ms to 550ms delay), and B stands for "both" which creates more of a blurry, reverb-like wash.

## WAVE SHAPE TOGGLE

This controls the shape of the wave for the pitch modulation on the repeats. Left for triangle, middle for sine, and right for square.

## BYPASS STOMP

Activates or bypasses the effect. This can be changed to a momentary bypass via a dip switch in the back of the pedal if it is desired. This pedal allows for "True Bypass" via a relay, or buffered bypass with "trails" selectable via a dip switch in the back of the pedal.

## TAP / HOLD STOMP

Sets tap tempo, always honors the last two stomps. Remember, the longest delay the pedal can achieve is 550ms, so if you try to make it longer it will just default to that. If, however, you have eighth note tap divisions dialed in and you are tapping at 1000ms, the pedal will process that and set the delay time to 500ms. If you hold down this stomp switch the pedal will go into self-oscillating regeneration "runaway" mode. This is the same effect as if the regeneration knob is set completely clockwise.

## LOWER TOGGLE

This switch recalls presets. The right position recalls one preset, the left position recalls a different preset. The middle position will always reflect wherever the knob positions, toggle positions, and dip switch positions are currently at. In order to save to the right preset slot, you hold down the right stomp (bypass) for 3 seconds and then hold down both stomp switches simultaneously for another 3 seconds. The LED blinks and your setting is saved. For the left slot, you do the same thing but hold the left stomp (tap) first. If you recall a preset, and move a knob, you will notice that the LED above the toggle goes dim. This is to signify that something has changed on the preset. If you want to save this change in the preset, you will have to save it again.

#### IN / OUT

1/4" mono input jack.

#### EXP / CV

¼" TRS jack for expression pedal (parameter selectable via dip switch in the back of the pedal. Tip goes to wiper. We recommend Mission expression pedals (EP-1 or EP-25k). Can also be used to for 0-5V Control Voltage (CV) on tip – the ring should be left floating in this case. There are many expression pedals that work with Chase Bliss Audio products, the Mission stuff just happens to be what we have here.

## TAP / MIDI

 $\frac{1}{4}$ " TRS jack. This can be used as a tap input or output with a regular  $\frac{1}{4}$ " instrument cable. In addition, it can be used to interface the pedal with an Empress Effects Midibox. Much more information on this in the MIDI manual.

## POWER & OTHER INFO

This pedal consumes ~150mA and should be operated with a standard 2.1mm 9V DC center negative adapter with current supply capabilities of 200mA or more. If you use a "standard" outlet of 100mA, the pedal will not function properly. Input impedance of this device is 1M, and output impedance is less than 5k.

# EXP / CV CONTROL & DIP SWITCHES

The Mix, Rate, Time, Regen, and Depth dip switches in the left bank allow you to control parameters via ramping or an Expression Pedal / CV. Whenever you plug a ¼" in to the EXP / CV jack, the pedal automatically knows that you will be controlling parameters via expression or CV, not ramping.

## DIRECT CONTROL OF WAVEFORM WITH EXP / CV

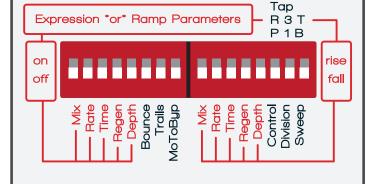
If you have something plugged in to the EXP / CV jack, but do not have any parameters selected via dip switch, you are allowed to control the modulation delay manually. The range of this effect can be limited by the position of the Depth knob. For a maximum sweep, set the Depth knob to its full clockwise position.

## SETTING EXP / CV RANGE

The range of the expression / CV is controlled by the parameter knob position and the "sweep" dip switch. For example, if you wanted an expression pedal to control the regen parameter from no regeneration to the edge of self-oscillation, you would make sure the "sweep" dip switch is in the bottom position and set the regen knob at the setting just before the pedal starts to generate sounds on its own. If you need more regeneration you simply turn the regen knob up slightly. This will increase the maximum range of the expression pedal. This allows you to control multiple parameters with an expression pedal, but you can fine tune the range that you want for each parameter.

#### UNDERSTANDING THE DIP SWITCHES

When you save a preset, all of this information gets saved. The parameters in **red** below correspond to an expression pedal (if one is plugged in).



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A very important thing to remember is that ramping always gets reset when bypassing. The parameters' current knob position control where the parameters ultimately will either start or stop ramping.

**The Mix, Rate, Time, Regen, and Depth** dip switches on the left side simply turn that parameter on or off for ramping or expression / CV capability.

## Mix, Rate, Time, Regen, and Depth

dip switches on the right side control whether or not the parameters will rise (go clockwise in ramp mode) or fall (go counterclockwise in ramp mode). It also controls how the parameters will behave with an expression pedal plugged in.

**Bounce:** When on (and no expression pedal), parameters will go back and forth (i.e. modulate), if it's off, parameters will ramp and hold.

**Trails:** This switch allows you to select bypass type. With trails "off" the bypass is normal, true bypass. With trails in the "on" position, you have a buffered bypass where the delay trails spillover into your dry tone. It is important to remember that with trails mode engaged, if you have the pedal set in a configuration that is causing self-oscillation, this will not stop simply because you are in bypass.

**MoToByp:** Momentary-to-bypass. If on, the pedal is only activated when the bypass stomp is pressed in.

**Tap Control:** "R" stands for ramp, "P" for parameter (RPM in this case). In the P position, tapping in a tempo will dictate the RPM rate. In the R position, tapping in the tempo will dictate the Ramp rate. This is great for modulating parameters. Remember, the "Bounce" dip switch needs to be on if you want to ramp parameters back and forth, rather than just ramping and holding.

**Tap Division:** In position "3" allows for second set of tap divisions starting with eight note triplet. This is also important for selecting MIDI note divisions.

**Sweep:** this controls where ramp sweeps. In "T" (top) the ramping (or expression control) will occur between the current knob position and the max position (fully clockwise). In "B" (bottom) the ramping (or expression control) will occur between the current knob position and the minimum position (fully counterclockwise).

NOTE: It may seem overwhelming and difficult for users to take all this in at first. My suggestion is always to forget about the dip switches for a while when you get the pedal. Get to know the basic functionality of it, and then if/ when you want to experiment with ramping or expression, it will likely be easier.

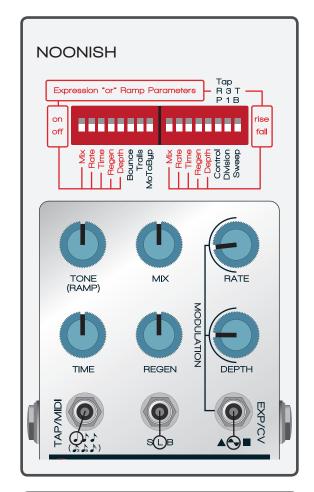
Some of these concepts are much easier to explain and demonstrate on video, and I have many tutorials available on my youtube channel at

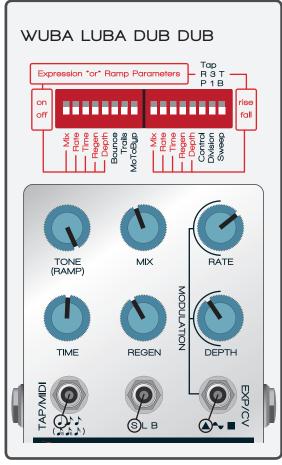
www.youtube.com/c/ChaseBlissAudio.

We also love to hear from customers and answer questions so feel free to write us anytime at chaseblissaudio.com/contact.

Thank you so much for purchasing this product and ENJOY!

All presets created by Mason Stoops. Hear them at soundcloud.com/chaseblissaudio





Example presets continued on next page

