SPLICE-500™ MKII DUAL MODE FET COMPRESSOR

Thank you for your purchase of the Serpent Audio SPLICE-500™ MKII. This unit is proudly 100% designed and built in the USA. Through our dedication to advanced engineering, high-quality components, and research from industry pros, you can expect years of reliability and great customer service.

THANK YOU

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1. DESCRIPTION / OVERVIEW:

The SPLICE-500™ MKII is a single channel FET based compressor, and can be used for mono applications, or can be paired with a second SPLICE-500™ MKII for stereo applications. The SPLICE-500™ MKII's unique circuitry mode switching allows the user to configure the input & output audio path circuitry between classic Blackface and Blue Stripe modes, or mix and match the two to create completely new sounds, unique to the SPLICE-500™ MKII.

2. SPECIFICATIONS:

Maximum Current Consumption: 175mA* @ +/-16V

Input: Constant 600R Input Attenuator, Floating Transformer Balanced

Output: Floating Transformer Balanced

Output (With Mix Enabled): <100 Ohm Output Impedance, Transformer-like Floating Output, Electronically Balanced (Accepts Balanced or Unbalanced Signals)

External Send: <100 Ohm Output Impedance, Transformer-like Floating Output, Electronically Balanced (XLR) (Accepts Balanced or Unbalanced Signals)

External Return: 22KHz Input Impedance, Electronically Balanced (XLR), (Accepts Balanced or Unbalanced Signals)

Maximum Input Level: +30dbu with compression engaged and Input level knob set to max (fully clockwise)

Maximum Output Level: +24dbu

Output Load: 150 Ohm minimal

Gain: 45db (+/-1dbu) with compression disabled (Ratio set to "BP")

Gain Reduction Element: FET

THD+N: (20Hz-20KHz) Typically 0.5%

Signal-To-Noise Ratio: >80dbu

**Before installation, ensure that the SPLICE-500™ MKII's power requirements do not exceed your 500 series rack's power supply rating.*

3. INSTALLATION & OPERATION:

The SPLICE-500™ MKII is a 500 series format compressor. It requires one channel in a 500 series compatible rack.

Be sure to safely and securely seat the edge cards of the SPLICE-500™ MKII into the edge connectors of your 500 rack before inserting the module. If the mounting holes on the front of the module do not properly align with the mounting holes on the rack, it can be adjusted by using a gentle, slight up and down rocking motion while inserting the module.

NEVER TWIST OR FORCE THE MODULE INTO THE RACK!

The SPLICE-500™ MKII contains a Class A transistor output circuit. Due to the nature of Class A circuits and the subsequent heat and power dissipation the module will be warm to the touch while in operation. The unit should be allowed a minimum of 5 minutes after power down before handling.

It is important to ensure adequate ventilation of the module while in operation. The SPLICE-500™ MKII should never be placed adjacent to another heat source or high power 500 module. While it is not required, it is recommended to leave a blank slot space to the right of the module in your 500 series rack to ensure adequate cooling and ventilation.

Overheating of the SPLICE-500™ MKII may lead to damage to the product not covered under warranty.

4. FRONT PANEL CONTROLS:

Input:

A fully adjustable rotary potentiometer, turning the input control clockwise will increase the amount of signal entering the unit and increase the amount of compression taking place (once the signal level reaches the compression threshold).

Output:

A fully adjustable rotary potentiometer, turning the output control clockwise will increase the amount of signal leaving the unit. Use this control to set appropriate make-up gain after adjusting the input knob for the desired amount of compression.

Attack:
The Attack time is defined as the amount of time the compressor takes to respond once the signal has crossed the threshold.

A fully adjustable rotary potentiometer, it allows for the slowest attack time of 800 microseconds (fully counterclockwise) to fastest attack time of 20 microseconds (fully clockwise).

Release:
The release time is defined as the amount of time it takes the compressor to return to 63% of the original signal level once the signal has passed above the threshold point.

A fully adjustable rotary potentiometer, it allows for the slowest release time of 1.1 seconds (fully counterclockwise) to fastest release time of 50 milliseconds (fully clockwise).

Ratio (Stepped):
The Ratio is defined as the amount of compression that takes place after the input signal has crossed the threshold point. The higher the ratio, the more the signal that crosses the threshold will be compressed. Ratios of 10:1 or higher are generally considered “limiting”, rather than compression.

The SPLICE-500™ MKII has stepped ratio times of: 2:1, 4:1, 8:1, 12:1, 20:1.

The Ratio has a control at its fully counterclockwise position labeled “1”, which acts as a 1:1 ratio / soft bypass and disables compression.

HPF (High Pass Filter):
The High Pass Filter control affects the frequencies going to the internal sidechain (In any compressor, the internal sidechain is what controls the compression taking place). Please note, this control does not filter the audio frequencies themselves, but rather the frequencies that are being compressed.

The High Pass Filter in the SPLICE-500™ MKII is a passive filter circuit and has a fixed frequency roll off at approximately 150Hz. The HPF is engaged when the toggle switch is in the up position.

Mix (AKA Blend):
A fully adjustable rotary potentiometer, the Mix/Blend knob enables blending between the dry (uncompressed) signal and wet (compressed) signal, allowing parallel compression completely within the box, with zero phase shift and zero additional routing required. The mix circuit is engaged when the toggle switch is in the up "IN" position.

> *Note: The Mix circuitry is a completely standalone electronically balanced circuit inserted after the Output Transformer. When enabled, the output signal at the Output XLR will be electronically balanced. When bypassed, the Mix circuit is completely removed from the audio path chain.*

> *Note: One of our favorite ways to use this feature is to set the Mix to 100% Wet. Adjust the other settings on the compressor so that you can clearly hear the style and characteristic of compression until you have the desired sound of the gain reduction. At this point you may have too much of a good thing. Simply turn the Wet signal down until you have blended in the desired amount of Dry signal. Listen for overall amount of dynamics and control. You should be able to dial in quickly and easily just the right amount for detail and density, squeeze and sustain.*

Meter:

The LED meter indicates gain reduction. When no gain reduction is occurring, only the Yellow "0" LED will be illuminated.

Meter 0 (Allow 30 minutes of warm-up time before adjusting):

The LED meter 0 position is factory calibrated and should not need to be adjusted. However, should it be necessary to calibrate the "0" position, this can be done by inserting a small flathead screw driver into the hole located on the front panel below the LED indicators labeled "MET_0" and following the instructions below.

1) Set the Ratio Switch to "1"
2) Turn the "MET_0" screw counterclockwise until only the Red "S" LED is illuminated.
3) Now slowly turn the "MET_0" screw clockwise just to the point where the Red "S" LED turns off and the Yellow "0" LED is illuminated.
4) Continue to turn the "MET_0" screw clockwise 1/2 turn.

Mode Switching:

The Audio path of the SPLICE-500™ MKII consists of two sections; the Input amplifier circuitry and the Output amplifier circuitry. The SPLICE™ MKII's unique circuitry mode switching allows the user to switch the audio path circuitry between classic Blackface and Blue Stripe modes, or mix and match between the two.

When both Input & Output Mode LED's are off (Black), the unit is configured for Blackface mode.

When both Input & Output Mode LED's are illuminated (Blue), the unit is configured for Blue Stripe Mode.

Alternatively, the unit can be configured to mix and match the Input & Output circuits, creating entirely new sounds unique to the SPLICE™ MKII (i.e. Blue Stripe Input circuit + Blackface Output circuit, or Blackface Input circuit + Blue Stripe Output circuit)

Note: The default mode when unit is powered on is Blackface.

Note: The switching recovery time for Input mode switching is approximately 2 seconds when the release knob time is set to its fastest setting (fully clockwise). Long release time settings will increase the Input switching mode cycle time.

Slam (AKA All Buttons In):

Slam Mode is a high distortion mode, also known as "All Buttons In". Slam mode is engaged when the toggle switch is in the up position. While in Slam mode, the Red "S" LED will illuminate when no gain reduction is present.

Note: To achieve a classic Slam mode sound, the Ratio must be set to the "4" or "20" positions with Slam mode enabled. Setting the ratio to 2, 8, or 12 with slam mode enabled will result in different distortion effects.

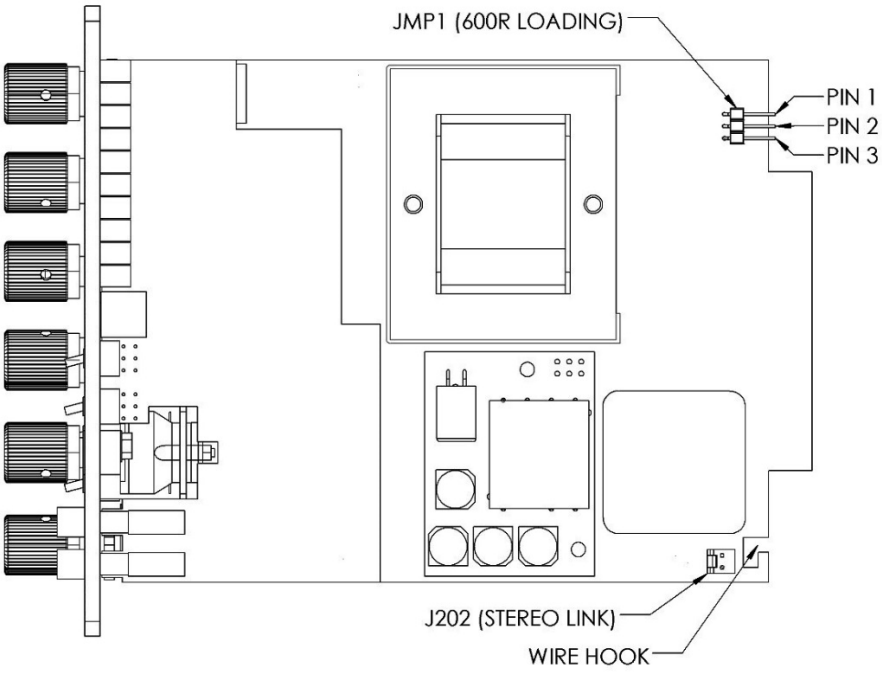
Link In:

The SPLICE-500™ MKII can be stereo linked with a second unit for stereo applications using the supplied cable. To connect two SPLICE-500™ MKII units together, connect the supplied cable from J202 on unit “A” to J202 on unit “B”. The link wire can be secured in the wire hook on the PCB. Refer to the diagram below for the location of J202. Stereo mode is enabled by placing the “Link” toggle switch on both units to the up position.

600R Loading Jumper:

The SPLICE-500™ MKII allows for easily terminating the output signal with a 600R load for optimal signal transfer for use with both vintage and modern gear.

Note: When connecting the SPLICE-500™ MKII’s output to vintage/600R equipment (typically known as “bridging”), the loading jumper should be disabled (connected to pins 2 & 3). When connecting the output to modern equipment (or when the Mix function is enabled), the Loading jumper should be enabled (connected to Pins 1 & 2). The SPLICE-500™ MKII is factory set with the jumper enabled. See diagram below.



4. MAINTENANCE AND CLEANING:
Normal cleaning and maintenance practices should be followed with the SPLICE-500™ MKII as with all of your other studio gear. The SPLICE-500™ MKII uses high quality components, and sealed pro-audio switches and pots, so the switches and pots do not require any regular cleaning.

5. WARRANTY:
The SPLICE-500™ MKII is covered under a limited warranty from manufacturer defect for a period of 1 year from date of purchase by the original owner, subject to factory inspection. Warranties are tracked by serial number. Warranties are non-transferrable.

Warranty does not cover loss or theft, nor does coverage extend to damage caused by misuse, abuse, neglect, unauthorized modification or tampering, improper storage conditions, power surges, lightening, or other natural disasters. Warranty does not cover wear and tear items (such as pots and switches) or cosmetic wear. Shipping and transport damages are not covered under warranty.

In the event of required maintenance within the warranty period, unit should be returned to Serpent Audio (or authorized repair facility). Inbound freight charges are the responsibility of the end user. Warranty does not cover return overnight or express shipping charges.

Serpent Audio does not authorize field repairs. Any modifications/attempted repairs by unauthorized personnel or tampering/ removal of the warranty seal or serial number label will void the warranty. Repairs outside of the warranty period will be subject to parts and labor charges determined at the time of repair.

Serpent Audio reserves the right to alter the hardware, software, documents, and design of its products without notice.

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