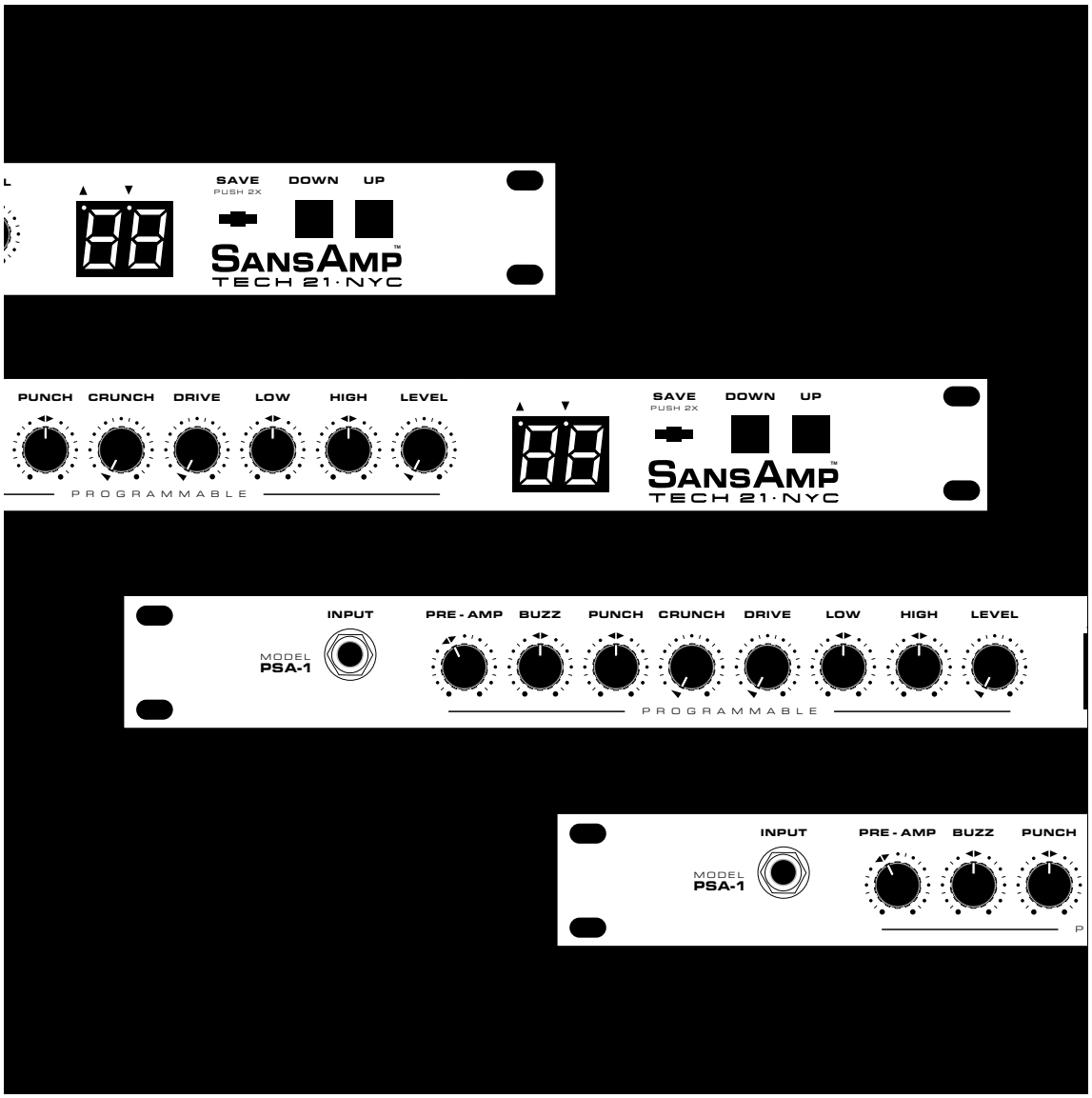
TECH 21·NYC



SANSAMP™ MODEL PSA-1

USER'S GUIDE

TABLE OF CONTENTS

The History of Tech 21's SansAmp™
Tech 21, Inc., introduced SansAmp "Classic" (the original pedal design) in 1989. Our proprietary F.E.T. hybrid-based circuitry pioneered Tube Amplifier Emulation for professional applications.

Engineered for direct recording and live performances, SansAmp delivers consistent quality sound --studio to studio, club to club, arena to arena. Players, engineers, and producers can now obtain a wide spectrum of warm, natural tube amplifier sounds from one convenient unit. Available in various formats, each SansAmp is suitable for any music style, from jazz to metal, and can be used with a variety of instruments --guitar, bass, keyboards, samplers, even sax and vocals.

The SansAmp Classic was conceived and developed by a guitarist who possesses the unusual combination of a trained ear and electronics expertise. The technology is designed in the true tradition of tube amplifiers in their *totality*—with a pre-amp stage and an output stage. It incorporates the harmonics and sweet overdrive characteristics unique to tube amplifiers—largely caused by what is referred to as "push-pull" symmetrical clipping. (A single tube is physically incapable of accomplishing the same results.) SansAmp captures these characteristics, and does so even at low volume levels.

SansAmp gives you the most coveted trademarked sounds and the flexibility to refine and redefine your own. Each model responds to and interacts with the dynamics of your individual playing style, your individual musical style, and your instrument's individual tonality. All of these factors play an important role in the resulting sound, which will ultimately be yours alone.

Designed & Manufactured in the U.S.A.
TECH 21, INC.

INTRODUCTION

SansAmp PSA-1 maintains its superior tone with our exclusive, 100% analog circuitry. Only the programming and memory sections are digital. The results are easy to hear: punchy, responsive, powerful sounds that bring out the best in an instrument—the kind of tones that characterize the original SansAmp Classic, SansAmp Bass DI, SansAmp GT2, and SansAmp Rackmount.

The SansAmp PSA-1 can be used for a variety of applications. In the studio, you can record direct to tape, enhance existing tracks in mixdowns, as well as add interesting touches to any

SANSAMP™ MODEL PSA-1

instrument. For live performances, it can be used as a pre-amp direct into a power amp with guitar or bass speaker cabinets, as a "monster direct box" to a P.A. system, (or both simultaneously), and as an outboard processor.

The SansAmp PSA-1 features MIDI capability for calling up programs and storing program data. There are 49 factory presets and 49 memory locations to store your own custom sounds, plus two bypass programs. When you switch between programs, there is no lag time, or "cutting out."

The controls on the SansAmp PSA-1 work very much like those found on a sophisticated amp. You don't need special training or a degree in physics to operate your unit. Storing and recalling programs is simple: set your tones and push the **Save** button. Like the SansAmp Rackmount, you just turn a knob and hear the difference immediately --in real time. There are 256 incremental steps in the rotation of each control, so increases and decreases occur in a smooth, gradual, linear fashion.

The SansAmp PSA-1 is designed to provide you with the flexibility to find almost any conceivable tonal personality within the tube amplifier sound spectrum.

QUICK START INSTRUCTIONS

Here's how you can get your PSA-1 up and running before you read the entire manual.
1. Plug your instrument into the front-panel **Input** jack (on the left side).
2. Plug one end of a cord into the rear panel's left **Output** jack, and plug the other end into the input of a mixer or an amp or power amp.
3. Plug the AC cord into a wall socket. The SansAmp PSA-1 is now on.
4. Turn on your amp or mixer. (If the mixer is patched into a monitor or recorder setup, make sure the power amp and speakers are turned on, too.)
5. Turn up the input level on your amp or mixer. If the signal is too "hot," resulting in unwanted distortion, or too weak, check the amp's or mixer's input control as well as the **Output Level Switch** on the back of the SansAmp PSA-1.
6. Play your favorite riff or chord changes, and you should hear a sound coming through your system. If not, recheck your connections, and make sure your guitar's volume control is turned up.
7. Select programs by pushing either the **Up** or **Down** buttons. The first 49 presets (01-49) are factory settings (refer to the list on page 22), and the second 49 programs (51-99) are storage locations for you to keep your settings. Note that the unit is shipped with programs 51-99 as duplicates of presets 01-49, and that 00 and 50 are bypass settings.

If you need further guidance in setting up your SansAmp PSA-1, check out the diagrams and information on pages 12 through 14.

INSTALLATION

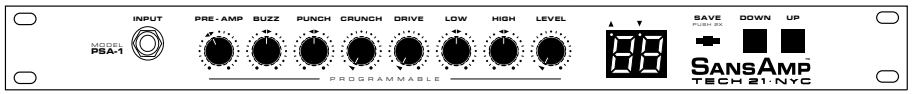
POWERING THE SANSAMP PSA-1

The SansAmp PSA-1 is powered by potentially hazardous voltage. Therefore, observe the following safety precautions.

WARNING: To avoid the risk of shock or fire, do not expose this unit to moisture. Do not remove the chassis from its cabinet, or remove metal covers from chassis parts. Removing the chassis from its cabinet exposes extremely dangerous high voltages. There are no user-serviceable parts inside. Hazardous voltages are present inside the chassis. Refer all servicing to qualified personnel.

CAUTION: Never modify the AC power cord. If the original AC power cord becomes damaged, refer your SansAmp PSA-1 for servicing.

WARNING: Attempting to repair this unit is not recommended and will void its warranty.
NOTE: In the U.S. and Canada, servicing of SansAmp PSA-1 is performed at factory only. In other countries, please refer repairs to the local Tech 21 authorized distributor.



FRONT PANEL

The SansAmp PSA-1 gives you access to specific tone-shaping characteristics within the tube amplifier sound spectrum. Controls of this nature are traditionally inaccessible on stock amps, and adjustments like these can ordinarily be achieved only by permanent professional modification.

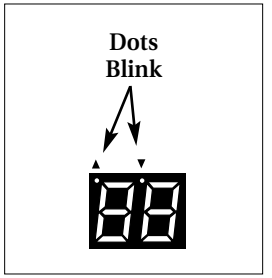
Tonality, for instance, can be adjusted in a variety of ways. The individual Character Controls, labeled **Buzz**, **Punch**, **Crunch**, and **Drive**, offer different results than the post EQ section (the controls labeled **Low** and **High**).

The gain structure can be adjusted via the **Pre-Amp** control, which results in a different kind of overdrive than the **Drive** control. Additionally, **Buzz**, **Punch**, and **Crunch** each affect the gain structure within specific frequency bands.

As you experiment and become familiar with the controls' interrelationships, you'll be able to customize your own sounds and store them in the SansAmp PSA-1's memory.

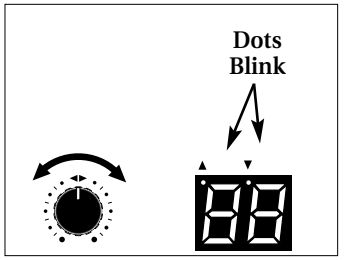
SANSAMP™ MODEL PSA-1

Because the SansAmp PSA-1 is fully programmable, everything you do is monitored by the SansAmp PSA-1's internal computer. Whenever you turn a knob from the setting stored in memory, one of the two dots in the upper left corners of the LED numerical display blinks.

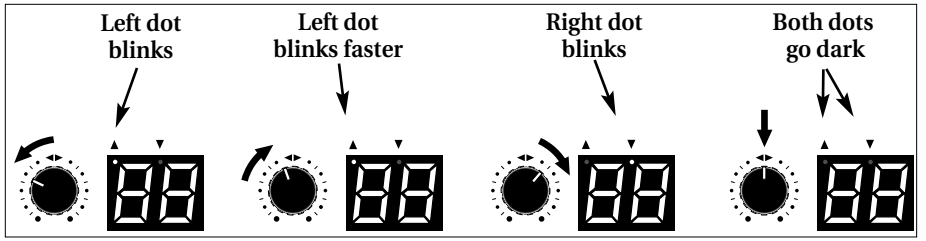


This feature is useful when you want to know the position of each knob's setting in the memory. Here's how to use it::

Assume that the preset point for a particular knob is 12 o'clock. When you turn that knob, it "unlocks." One of the two dots above the digits in the LED numerical display will blink. The arrows above the LED display tell you which direction you need to turn the knob to find the preset point. The up arrow tells you to increase the setting; the down arrow tells you to decrease.



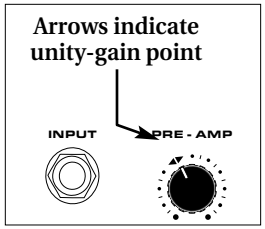
If you are far below the preset point, the left dot blinks slowly. Follow the direction of the arrow (up) and increase the setting. As you get closer to the preset point,



the dot blinks faster. If you turn the knob past the preset point, the right dot will first blink fast and then slow as you turn farther clockwise away from the preset point. When you reach the preset point, both dots stop blinking and go dark.

INPUT JACK

This 1/4" **Input** features an impedance buffer so that the tone from a guitar's or bass' pickups, or the signal from other instruments, reaches the SansAmp PSA-1 without degradation. A second input jack is located on the rear panel. Note: plugging into the front-panel **Input** jack overrides and disconnects the rear-panel jack. This lets you set up your SansAmp PSA-1 as a permanent part of a rack or patch-bay setup, with its usual input source plugged into the rear-panel jack. Then, if you want to plug straight into the SansAmp PSA-1, bypassing other parts of the system, you can use the SansAmp PSA-1's front **Input**.



PRE-AMP

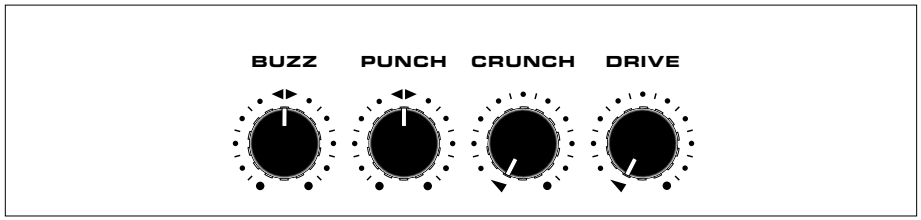
This is the input sensitivity control. The **Pre-Amp** control adjusts the signal level going into the input section of the SansAmp PSA-1. The arrows in the surrounding circle symbolize the unity-gain point (that is, no boost or cut). When clean sounds are desired with the use of a hot-output instrument, decrease from the unity-gain point. Increasing the position of the **Pre-Amp** control produces an effect similar to putting a clean booster pedal into the input of a tube amp.

To achieve the least amount of noise, keep the **Pre-Amp** knob at unity gain or higher. Experiment with the interplay between your instrument and the SansAmp PSA-1.

Note: For best results, do not set the **Pre-Amp** level lower than unity gain when the **Drive** knob is at 9 o'clock or higher. However, if you want a crystal-clear sound and the **Drive** control is already near minimum and there's still too much overdrive, decrease the **Pre-Amp**'s level as needed.

Pre-Amp also influences different types of overdrive. For instance, a high setting emphasizes pre-amp distortion (see Boogie® Lead-style setting), as opposed to when **Drive** is in a high setting, which emphasizes power amp distortion (see Vintage Marshall®-style setting).

CHARACTER CONTROLS



Continuously variable Character Controls offer tremendous flexibility in adjusting tonality, gain structure, and harmonic content.

BUZZ

The knob labeled **Buzz** controls the low-end break-up and overdrive. You can boost the effect by turning clockwise from the center point indicated by the arrows, and cut by turning counterclockwise. When you turn towards maximum, the sound becomes (you guessed it) buzzy. For a clean setting, increase the setting in small increments. For increased definition when using distortion, position the knob at its midpoint or towards minimum.

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PUNCH

The **Punch** control sets the amount of midrange break-up and overdrive. Boost or cut from the center point indicated by the arrows. Decreasing from the center point produces a softer, Fender®-style break-up. Increasing its setting creates a harder, heavier distortion. At maximum, it produces a sound similar to a wah pedal at mid-boost position placed in front of a Marshall® amp.

CRUNCH

The **Crunch** control brings out the upper harmonic content and pick attack. For a smoother high end and for clean settings, decrease to taste.

DRIVE

Like the volume control on a non-master-volume tube amp, **Drive** increases the amount of power amp distortion. In live applications, we recommend using less **Drive** than when direct recording. This compensates for the natural sustain of high volumes.

LOW

This active low-end tone control is specially tuned for maximum musicality when used to EQ instruments. Boost or cut by ±12dB by turning from its center point indicated by the arrows.

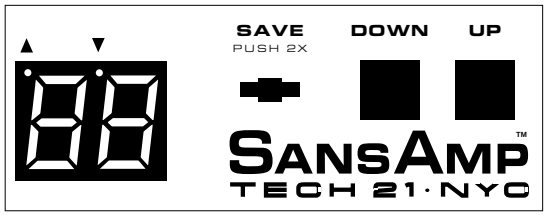
HIGH

This active high-end tone control is specially tuned for maximum musicality when used to EQ instruments. Boost or cut by ±12dB by turning from its center point indicated by the arrows.

LEVEL

This one control simultaneously adjusts the output level of the rear-panel **XLR** and **1/4" outputs**.

2-DIGIT LED DISPLAY



Everything you need to know is in these two digits. This display is readable from any angle, in daylight or darkness. It tells you which program is active, whether any knob's setting has been changed, when a program is stored, and when MIDI functions have been activated. Refer to the sections on programming your SansAmp PSA-1 and using MIDI for specific information regarding the display's functions.

SAVE SWITCH

The **Save** switch stores your custom settings in the memory of the SansAmp PSA-1. It also gives you access to the Special Page function menu. It is purposely recessed into the front panel to make it difficult to inadvertently push. You can use a guitar pick, a pen tip, or a well-placed fingernail to push it.

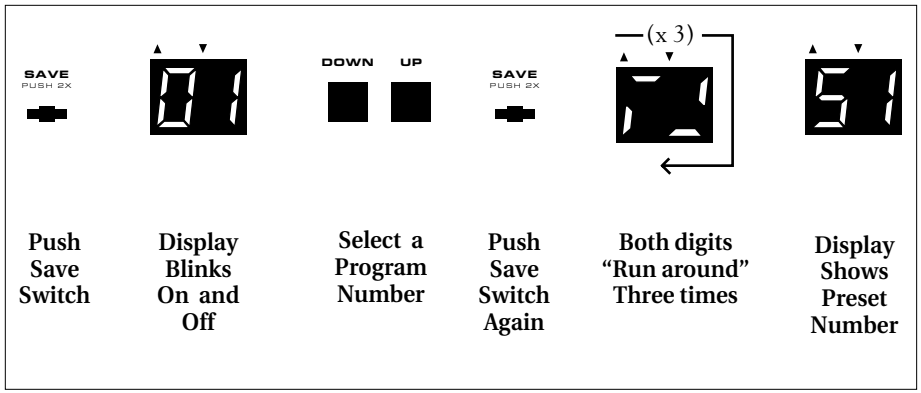
SAVING A PROGRAM

When you've created a sound you like and want to save the setting, follow this procedure:

1. Push the **Save** switch once. Both digits of the display blink on and off.
2. Use the **Up** or **Down** switches to select a program number (51-99*) where you want to save the program.
3. Push the **Save** switch a second time. The display will "run around" three times and then show the selected program number (it will stop blinking). That's it. You've stored a program.

*Programs 00 - 50 are permanent factory presets and cannot be overwritten. Additionally, 00 and 50 are permanent bypass programs for the instrument signal to pass straight through the SansAmp PSA-1.

Be careful not to overwrite a program that you wanted to keep, since the new program will entirely wipe out the old one that was in the same memory location. Accidents can happen, so it's a good idea to keep track of what's in each of your programs. Make photocopies of the



blank diagrams on pages 24-25. Each time you save a program, write in the knob settings and give each program a name (song title, description of the tone, etc.) for easy reference later.

Remember that you can't overwrite the factory presets. If you try to save over a factory preset, you will get a flashing letter "E" that tells you you're making an error.

Note: You can also off-load your custom presets to a computer, sequencer, etc., using a Custom Preset Data Dump. For more on this, see page 16.

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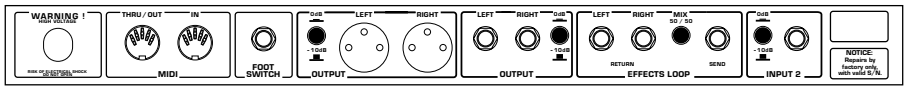
DOWN SWITCH

Pushing this switch once counts down through the programs one at a time. Holding it down moves quickly through them.

UP SWITCH

Pushing this switch once counts up through the programs one at a time. Holding it down advances quickly through them.

REAR PANEL



INPUT 2 SECTION

INPUT 2 JACK

Plugging into **Input 2** lets you match the SansAmp PSA-1's input circuitry to the signal level being fed into it, thereby assuring the best signal-to-noise ratio and least distortion. This input is ideal for rack and patch-bay applications, especially if you use other signal processors or multi-track recorders before the SansAmp PSA-1. Note: Whenever you plug into the front panel's **Input**, the rear panel **Input 2** is disconnected. Also, you can set the **Input** level selector switch to its 0dB position when you plug in extra-hot signals, such as the output from active bass guitars.

LEVEL SELECTOR SWITCH

This switch lets you connect the SansAmp PSA-1 to a wide variety of equipment with a variety of signal levels. It has two positions:

0dB position. This engages the input pad. Set the switch in this position when sending a line-level signal into the SansAmp PSA-1. When the switch is in this position, the signal coming into the unit is padded down by 10dB.

-10dB position. When the input pad switch is disengaged (at its -10dB setting), the rear panel **Input 2** is optimized to receive an instrument level signal. In this position, **Input 2**'s sensitivity is exactly the same as the front panel's **Input**.

EFFECTS LOOP

EFFECTS SEND

This jack sends the SansAmp PSA-1's signal to processors. When nothing is plugged into the **Effects Loop**, the signal passes through from the SansAmp PSA-1 to the **Output** jacks, with

both the left and right **Output** jacks receiving the same signal. Note: The **Effects Loop Send** is muted in bypass programs.

MIX 50/50 SWITCH

The **1/4" Send** routes 100% of the SansAmp PSA-1's signal through your effects processor when the **50/50** switch is disengaged. If you engage the **50/50** switch, then 50% of the SansAmp PSA-1 signal goes through your effects processor, and the other 50% passes directly to the **1/4"** and **XLR Outputs**.

To preserve the signal integrity of the SansAmp PSA-1, use the **Effects Loop** with the **50/50** switch engaged. When the SansAmp PSA-1 is in this mode, the effects processor's mix control should be set at 100% wet. Your relative wet/dry mixture can then be controlled by increasing or decreasing the effects processor's output level.

RIGHT RETURN

When using a mono effects processor, plug the processor's output into the SansAmp PSA-1's **Right Return**. This will route the signal to both pairs of left and right **Outputs**.

LEFT RETURN

This is one of two stereo returns for the **Effects Loop**. If your signal processor has only one output (mono), then plug it into the **Right Return**.

UNIVERSAL OUTPUT SECTION

Another aspect of the technological advancement of the SansAmp PSA-1 is that its output sections are physically compatible with any application. The outputs can be used for full range (multi-track recorders, studio monitors, P.A. systems) as well as limited range systems (guitar or bass speaker cabinets). Note: You can compensate for different frequency responses of speaker enclosures by using the **High** control.

1/4" OUTPUT LEVEL SWITCH

This switch selects the **Output** level's range. When this switch is in its 0dB position (engaged), the **Output** is at line level. When the switch is in its -10dB position (disengaged), the **Output** is at instrument level.

1/4" OUTPUT JACKS

These left and right 1/4" jacks carry the signal from the SansAmp PSA-1. This includes any effects that are placed in the **Effects Loop**. The **Output** level switch (0dB/-10dB) lets you interface the SansAmp PSA-1 with a variety of line and instrument level inputs, including recorders and mixers requiring low-level signals, signal processors, and power amps.

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XLR OUTPUT JACKS

The SansAmp PSA-1's two **XLR Outputs** are designed without transformers to provide a low-impedance output of extremely high quality for recording or interface with professional-quality signal processors. (It includes any effects that are placed in the **Effects Loop**.) **XLR** and **1/4" Outputs** may be used simultaneously. Minimum output impedance is 600 ohms.

XLR OUTPUT LEVEL SWITCH

This switch sets the range of the signal level sent out of the **XLR Output** jacks. When the switch is in 0dB position (engaged), the **Output** is in the line level range. When the switch is in its -10dB position (disengaged), the **Output** is in the instrument level range.

Note: The standard output level range of the SansAmp PSA-1 is 0dB due to the wide availability of digital recorders, which are unforgiving to excessive input levels. This prevents overloading the input of a digital recorder.

FOOTSWITCH

Any momentary footswitch can be used to step through SansAmp PSA-1's programs. Refer to the section on page 14, "Using MIDI And Remote Footswitch," for details on using a footswitch with the SansAmp PSA-1. Optional factory footswitch, with LED status indicator, is available through your local Tech 21 authorized dealer.

MIDI

MIDI IN

This jack receives MIDI signals, including Program Change commands and MIDI data dumps.

MIDI THRU/OUT

This jack normally functions as a **MIDI Thru**, which lets MIDI data entering the SansAmp PSA-1 pass through to other MIDI-controlled gear. This is useful when you employ a MIDI footcontroller to control the SansAmp PSA-1 and an effects processor. You can disengage the **MIDI Thru** by using Special Page Function 9 (see page 21).

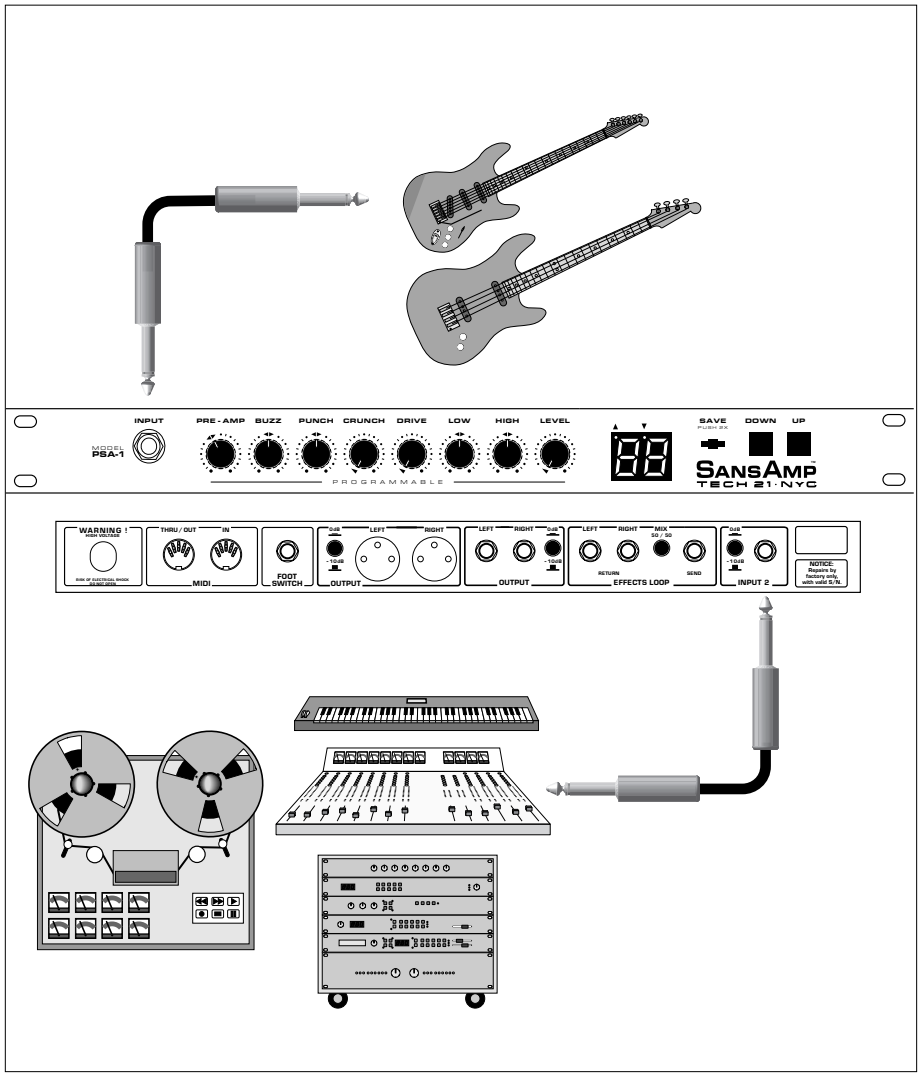
When you off-load custom preset data or MIDI map data , this jack operates as a **MIDI Out**. (See Special Page Functions 1 and 7, pages 16 and 21.)

Always use good-quality MIDI cables for connecting the SansAmp PSA-1 with other gear.

SUGGESTED SETUPS

The following three pages show you how to interface your SansAmp PSA-1 with other gear, including MIDI equipment.

USING THE SANSAMP PSA-1'S INPUTS



The front-panel Input jack is designed to accept signals from guitars, basses, keyboards, etc. You can set up your SansAmp PSA-1 as a permanent part of a rack or patch-bay setup, with its usual input source plugged into the rear-panel jack. Then, if you want to plug straight into the SansAmp PSA-1, use the front-panel Input, which overrides the rear-panel Input 2.

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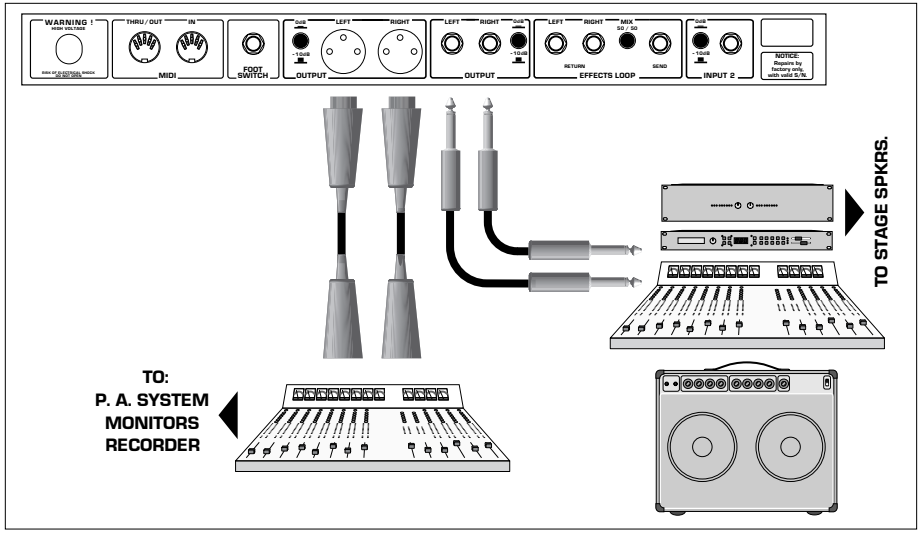
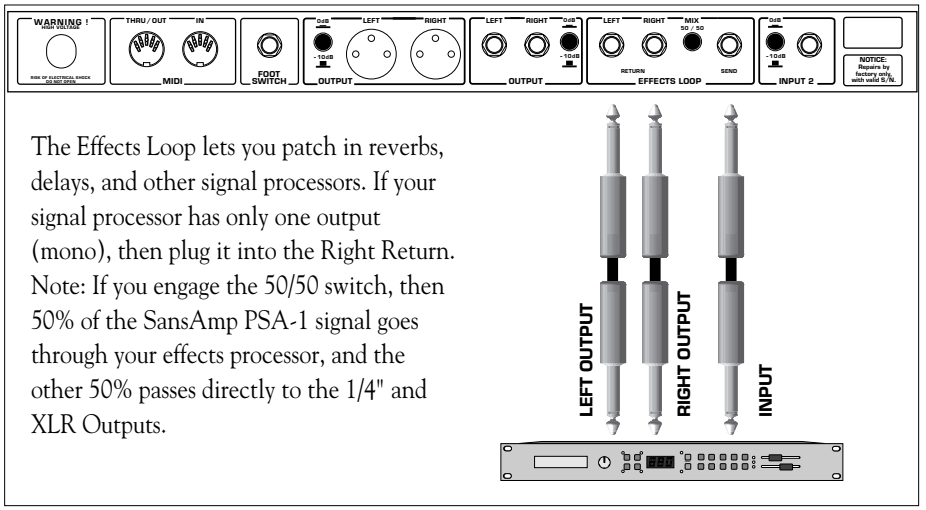
USING THE SANSAMP PSA-1'S OUTPUTS



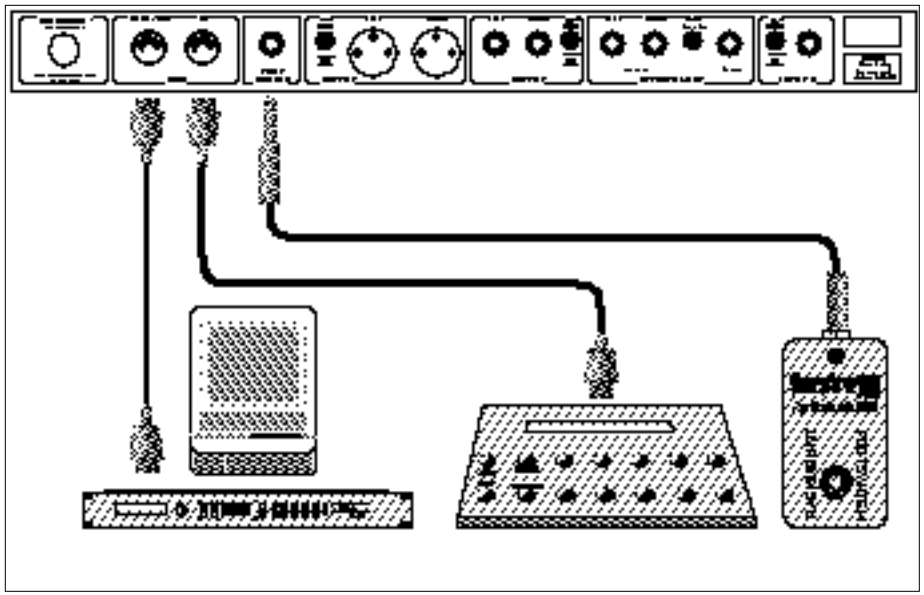
The SansAmp PSA-1 has dual 1/4" unbalanced and XLR balanced Outputs for interfacing with all types of gear. XLR Outputs provide a signal for driving pro gear, including P.A. systems, mixers, signal processors. 1/4" Outputs are ideal for feeding most mixers, signal processors, and instrument amplifiers. Each set can be used simultaneously and independently.

USING THE EFFECTS LOOP



The Effects Loop lets you patch in reverbs, delays, and other signal processors. If your signal processor has only one output (mono), then plug it into the Right Return. Note: If you engage the 50/50 switch, then 50% of the SansAmp PSA-1 signal goes through your effects processor, and the other 50% passes directly to the 1/4" and XLR Outputs.

USING MIDI AND REMOTE FOOTSWITCH*



All MIDI gear, including MIDI footcontrollers, signal processors, keyboards, and computers, can be connected to the SansAmp PSA-1. The MIDI In accepts Program Change commands, as well as MIDI Map and Program dumps. The MIDI Thru/Out jack is usually configured as a MIDI Thru, except when data is being transmitted from the SansAmp PSA-1. Any momentary-action footswitch can be used to cycle through the SansAmp PSA-1's presets, as well as MIDI footcontrollers that include a momentary-action switch.

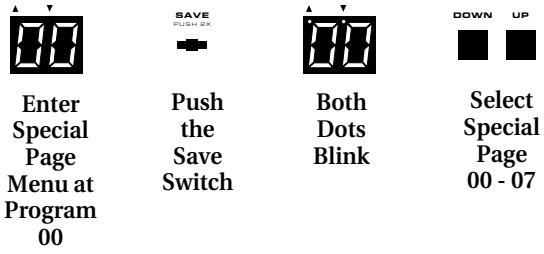
*Optional momentary-action factory footswitch, with LED status indicator, is available through your local Tech 21 authorized dealer.

SPECIAL PAGE FUNCTIONS & MIDI IMPLEMENTATION

SPECIAL PAGE FUNCTIONS

Some very important features lurk inside your SansAmp PSA-1 and aren't accessible through the knobs and **Up** and **Down** switches alone. However, they're very powerful and useful, so take the time to check them out, especially if you are using a MIDI footcontroller or other MIDI gear to interface with your SansAmp PSA-1.

To operate the Special Page functions, select Program 00 (zero zero) and press the **Save** button once. (Use a guitar pick or a pen tip.) The dots in the upper left corners of both digits in the numerical display should now be flashing together.



Use the **Up** and **Down** keys to select any of these functions:

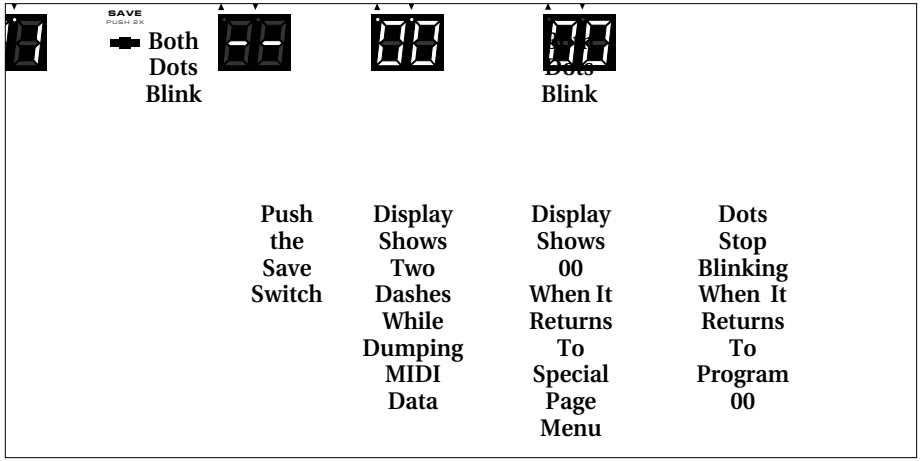
00	Exit Special Page
01	Custom Preset Data Dump out through the MIDI Thru/Out port
02	Define MIDI Mapping
03	Set the Loop Count for the Footswitch
04	Set Fixed/Programmable Swap Bit
05	Set MIDI Channel
06	Software Revision Number
07	MIDI Map Dump out through the MIDI Thru/Out port
08	Disengage All Pots
09	MIDI Thru Disable

When you select a function, press the **Save** button a second time. The dots will glow continuously.

NOTE: If you select function 00, you will exit the Special Page function menu and return to Bypass Program 00. If you select any of the other functions, here's what they do:

SPECIAL PAGE FUNCTION 1: CUSTOM PRESET DATA DUMP

This lets you off-load your custom presets to another SansAmp PSA-1 or other external MIDI gear, such as a sequencer. Connect a MIDI cable from the SansAmp PSA-1's MIDI Thru/Out jack, and plug the other end into a second SansAmp PSA-1, sequencer, MIDIable computer, etc. Set up the sequencer or computer to receive the MIDI data (a second SansAmp PSA-1 automatically detects and accepts the data dump, so you don't have to adjust anything), and then press the SansAmp PSA-1's **Save** key. The SansAmp PSA-1's display will show two



dashes for approximately 10 seconds, and then 00, meaning that it has completed the dump. After doing the dump, it returns to the Special Page function menu. You may now choose either a new Special Page function, or press **Save** again to exit. If you don't make a choice in about 15 seconds, the display reverts to 00 without the dots blinking, indicating that the SansAmp PSA-1 is in Program 00, bypass.

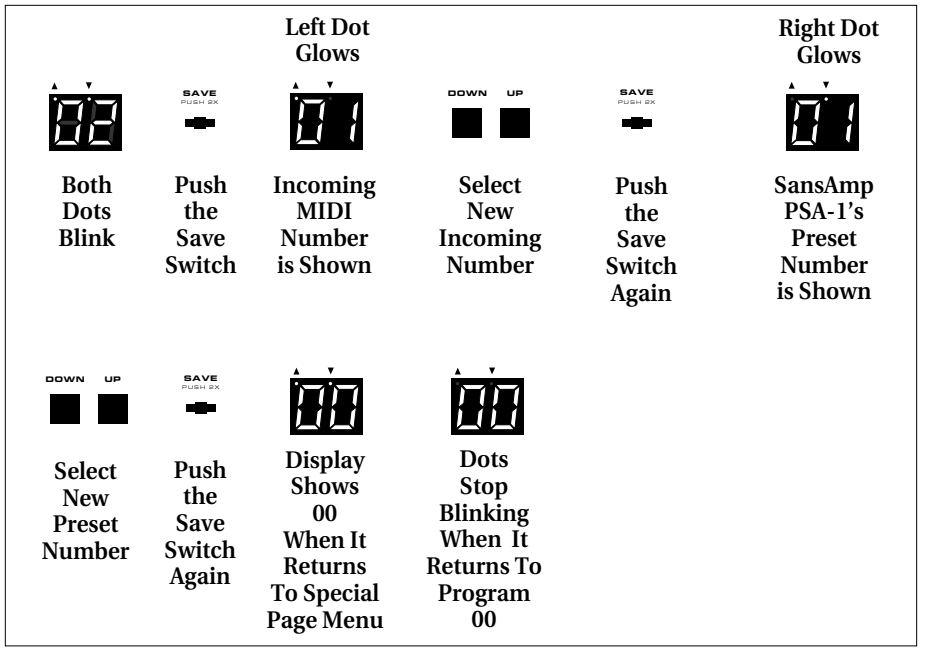
SPECIAL PAGE FUNCTION 2: MIDI MAPPING

This function defines internal MIDI mapping. That is, it tells your SansAmp PSA-1 which program to call up when a MIDI Program Change command comes in. For example, if your MIDI footcontroller sends out a Program Change command that says Program 26, and you want your SansAmp PSA-1 to respond to that Program 26 message by calling up preset number 15, you can set the SansAmp PSA-1 to *map* that message to the appropriate location.

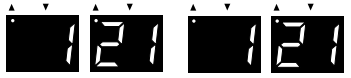
The SansAmp PSA-1 comes from the factory with its MIDI map set by default to map incoming programs to the displayed programs. That is, MIDI 01 calls up program 01, etc. The SansAmp PSA-1 has 100 program locations; therefore, any Program Change messages with values greater than 99 are automatically remapped. So, incoming Program Change numbers 100 through 128 are automatically remapped so that 100 calls up 00, 101 calls up 01, and so

on until 128 calls up program 28.

To remap a MIDI Program Change command, here's what you do:
Select function 02. Now push **Save**. The display's upper left dot glows, telling you that the



display is showing the number of the incoming program. To change that number, use the **Up** and **Down** switches to select a new number. Now push the **Save** button and the right dot glows, telling you the display is indicating the SansAmp PSA-1 program that will be affected by the incoming MIDI Program Change number that you selected. To change the program, use the **Up** and **Down** buttons. Then push the **Save** button to store your change. The display will show two zeroes and blinking dots to indicate that you're back at function 00. If you don't make any changes in about 15 seconds, the display will revert to 00



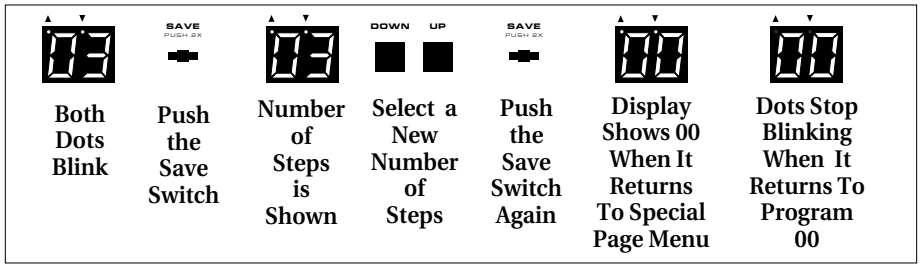
Display blinks the number "1" and two-digit number to indicate incoming MIDI number is greater than 99 (MIDI program number 121 is shown here)

Note: If you select a number above 99, the number 1, for 100, will blink in alternation with a two-digit number.

without blinking dots, meaning that the SansAmp PSA-1 is at program 00, or bypass. Once you've remapped the programs to your satisfaction, press the **Save** button to exit the Special Page menu.

SPECIAL PAGE FUNCTION 3: SET FOOTSWITCH LOOP COUNT

With a single momentary footswitch, you can step through any number of programs you want, and the sequence loops itself back automatically. (Your SansAmp PSA-1 is factory programmed for three steps, although you can set different numbers.) That is, if you have a four-



step footswitch loop count, and you step on the footswitch repeatedly, the programs will cycle through like this:

00, 01, 02, 03, 00, 01, 02, 03, 00, etc. *or* 21, 22, 23, 24, 21, 22, 23, 24, 21, etc.

You can set up your loop to include as many as all 100 (00 to 99) programs in the unit. However, on a more practical level, you may want to limit your loop to a smaller number. If you have selected Special Page Function 3, the display shows the current setting of the footswitch loop count. You may use the **Up** and **Down** keys to increase or decrease the loop count and press **Save** to store your selection. The dots will then return to their previous flash rate, the display will show zero, and you will be back at the Special Page function menu. You may select another function, or press **Save** to exit.

USEFUL FOOTSWITCH TRICK

If you are using a MIDI footcontroller to call up the programs in your SansAmp PSA-1, you can use still use your momentary footswitch to cycle through a group. For instance, if you select a loop of four programs, as shown in the previous example, then you can step through four programs beginning on any program number, if you use a MIDI footcontroller. Here's how: Use your MIDI footcontroller to call up, say, Program 25, and have your SansAmp PSA-1 set to loop through four programs. Instead of the first program being 00 when you step on the momentary switch, it's 25. The sequence, then as you step on the footswitch, is 25, 26, 27, 28, 25, 26, 27, 28, etc.

Now, if you program the SansAmp PSA-1 to step through only two presets, you can set up rhythm and lead programs for individual songs, and select the grouping with your MIDI footcontroller. For example, you can set up rhythm and lead sounds in Programs 22 and 23 for one song, and rhythm and lead sounds for another song in Programs 24 and 25. Then when you play the first song, select Program 22 using the MIDI footcontroller and step on the momentary switch to go back and forth between Programs 22 and 23. When it's time for the next song, use the MIDI footcontroller to call up Program 24, and then use the momentary switch to toggle between Programs 24 and 25.

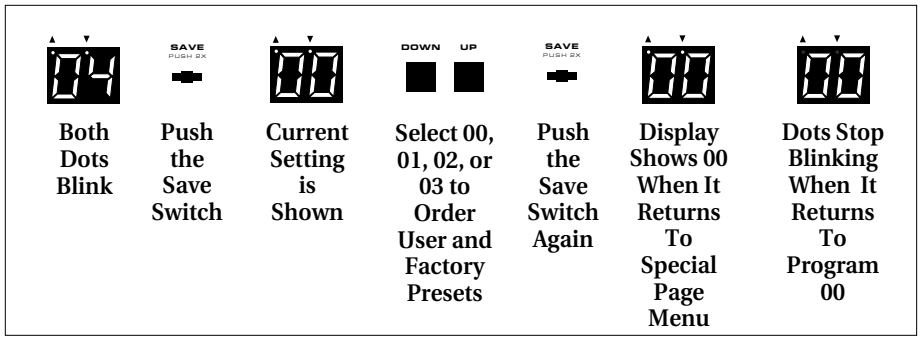
Set up two, three, or as many presets per song or style you want, according to your needs. You can set up blues groupings, ballad groupings, grunge groupings, metal groupings, etc., and have them all ready to call up at any time.

SPECIAL PAGE FUNCTION 4: FIXED/PROGRAMMABLE SWAP BIT

This allows you to "swap" the positioning of the fixed Factory presets with user-programmable Custom settings. When you select Function 4, the display will show either 00, 01, 02 or 03.

-00 groups Factory presets at Programs 00-49; **Custom** settings at 50-99 (as shipped).
-01 groups **Custom** settings at Programs 00-49; Factory presets at 50-99.
-02 groups Factory presets at Programs 00-49; **Custom** settings at 50-99 + **memory protect**.
-03 groups **Custom** settings + **memory protect** at Programs 00-49; Factory presets at 50-99.

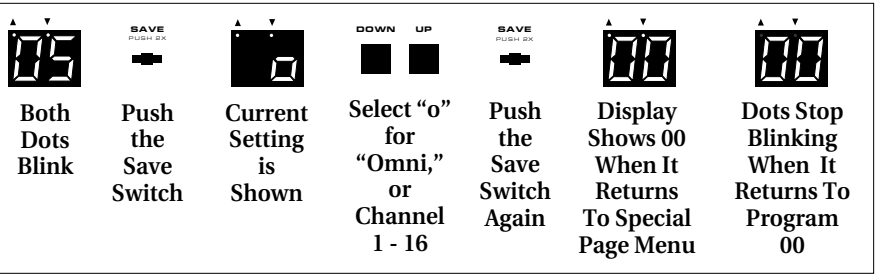
The memory-protect feature in both 02 and 03 means your custom settings cannot be overwritten. Factory settings are permanently locked-in no matter which grouping you choose.



To change the setting, push the **Save** button. Then use the **Up** and **Down** buttons to select 00, 01, 02, or 03. Then push **Save** to store your selection. The display will then show 00 with blinking dots to indicate you're still in the Special Page menu. You may now choose either a new Special Page function, or press **Save** again to exit. If you don't make a choice in about 15 seconds, the display reverts to 00 without the dots blinking, indicating that the SansAmp PSA-1 is in Program 00, bypass.

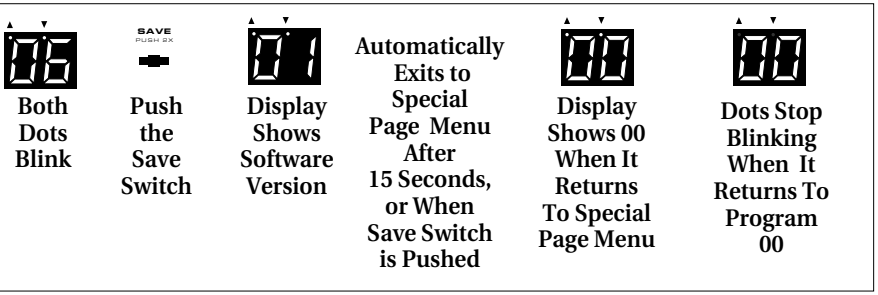
SPECIAL PAGE FUNCTION 5: MIDI CHANNEL SELECT

This function sets the MIDI channel on which the SansAmp PSA-1 receives MIDI data. It can be set to Omni (receive on any or all channels), or specific channels 1 through 16. Push the **Save** button, and the display shows the current setting. Press the **Up** or **Down** buttons to select either Omni (the default value, indicated by a small "o" in the right digit), or any number between 1 and 16. Push **Save** to save your selection. The display shows 00 with blinking dots to indicate that you're in the Special Page menu. You may now choose either a new Special Page function, or press **Save** again to exit. If you don't make a choice in about 15 seconds, the display reverts to 00 without the dots blinking, indicating that the SansAmp PSA-1 is in Program 00, bypass.



SPECIAL PAGE FUNCTION 6: SOFTWARE REVISION NUMBER

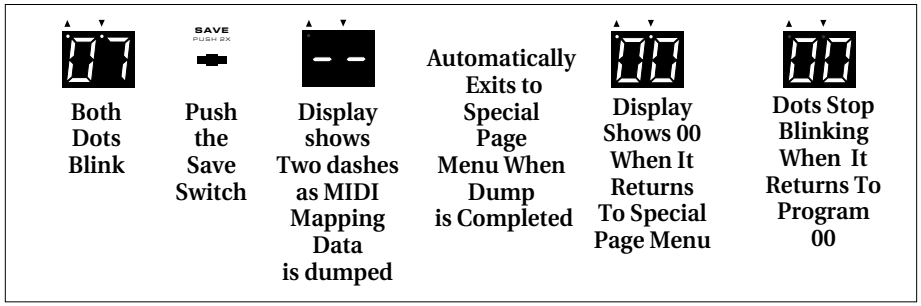
This function tells you which software version your SansAmp PSA-1 has. You can't alter this, but the information may come in handy in the future if software upgrades become available. Push the **Save** button and the display will show a letter or two-digit number (01, 02, etc.). After showing you the software version, the display reverts to 00 with blinking dots to indicate you're in the Special Page menu. You may now choose either a new Special Page function, or press **Save** again to exit. If you don't make a choice in about 15 seconds, the display reverts to 00 without the dots blinking, indicating that the SansAmp PSA-1 is in Program 00, bypass.



SANSAMP™ MODEL PSA-1

SPECIAL PAGE FUNCTION 7: MIDI MAP DUMP

If you want to dump your MIDI mapping data only, you can use this function. Run a MIDI cable from the **MIDI Thru/Out** jack on the rear of the SansAmp PSA-1 to the MIDI in jack on a sequencer, computer, etc. Ready the other piece of gear to receive data, and then push the **Save** button on the SansAmp PSA-1. The display shows two dashes as the MIDI mapping data is sent. When it's done, it automatically returns to showing 00 with two flashing dots to indicate that the SansAmp PSA-1 is in Special Page menu. You may now choose either a new Special Page function, or press **Save** again to exit. If you don't make a choice in about 15 seconds, the display reverts to 00 without the dots blinking, indicating that the SansAmp PSA-1 is in Program 00, bypass.



SPECIAL PAGE FUNCTION 8: DISENGAGE ALL POTS

This function renders all eight front panel potentiometers *inactive*. This advanced feature prevents accidental setting changes during performances. All presets remain in the memory and are accessible via footswitch or MIDI, however, you cannot edit the programs while in this mode. Select function 08 and press **Save**. Use the **Up** and **Down** buttons to select between two options: **00 = All pots engaged (normal operation)**. Or, **01 = All pots disengaged**. Then push **Save** to store your selection. The display will then show 00 with blinking dots to indicate you're still in the Special Page menu. You may now choose either a new Special Page function, or press **Save** again to exit.

SPECIAL PAGE FUNCTION 9: MIDI THRU DISABLE

This function disables MIDI Thru on the MIDI Thru/Out port. If you are using a multi-port MIDI interface, you should disable MIDI Thru. If you are daisy chaining your MIDI devices, leave it enabled. Select function 09 and press **Save**. Use the **Up** and **Down** buttons to select: **00 = MIDI Thru enabled (normal operation)**. Or, **01 = MIDI Thru disabled**. Then push **Save** to store your selection. The display will then show 00 with blinking dots to indicate you're still in the Special Page menu. You may now choose either a new Special Page function, or press **Save** again to exit.

LIST OF PRESETS

Note: Factory presets are based upon using the appropriate types of instruments and/or accessories associated with each particular sound.

SOUND GROUP	PRESET	SOUND
	00	Bypass
Marshall® styles	01	Plexi
	02	Vintage
	03	Schenker
	04	JMP-1®
	05	High Gain
	06	Bluesbreaker
	07	Hendrix
	08	Van Halen I
	09	Classic Clean
Fender® styles	10	Stock
	11	B.B. King
	12	Stevie Ray
	13	Funk
	14	Champ®
	15	Twin®
	16	Super Bright
	17	Classic Rock
	18	Super Clean
	19	Jazz
Mesa/Boogie® styles	20	Mark I®
	21	Metallica
	22	Santana
	23	Clean
	24	Rectifier®
	25	Triaxis®
	26	Lead
	27	Rhythm
	28	Too Much Gain
	29	Mutant
Bass styles	30	SVT®
	31	Bassman®
	32	Jazz
	33	Metal
	34	Slap
	35	King's X
	36	Yes
	37	Lead
	38	Doug Wimbish
	39	Crimson
Miscellaneous styles	40	Fuzz Face®
	41	Big Muff Pi®
	42	Pignose®
	43	MXR+®
	44	Tele® Simulator
	45	American Woman
	46	Pantera
	47	Hiwatt®
	48	AC30® Queen
	49	Speaker Simulator
	50	Bypass

SANSAMP™ MODEL PSA-1

LIST OF CUSTOM SETTINGS

(Keep a checklist of your customized programs.)

PROGRAM #	SOUND/NAME	PROGRAM #	SOUND/NAME

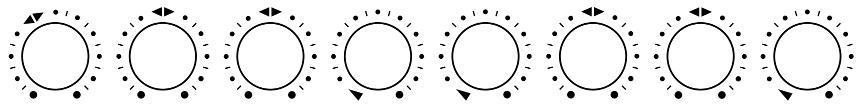
Marshall®, JMP-1®, Fender®, Champ®, Twin®, Mesa/Boogie®, Mark I®, Rectifier®, Triaxis®, SVT®, Bassman®, Fuzz Face®, Big Muff Pi®, Pignose®, MXR +®, Tele®, Hiwatt®, and AC30® are registered trademarks of their respective companies. Names of factory presets are intended for descriptive purposes only and should not be construed as an endorsement or affiliation with the companies, products, song titles, or persons named.

CUSTOM SETTINGS DIAGRAMS

(Photocopy these pages and keep a record of your customized programs.)

Program Number ____________________

PRE - AMP | BUZZ | PUNCH | CRUNCH | DRIVE | LOW | HIGH | LEVEL



Notes ____

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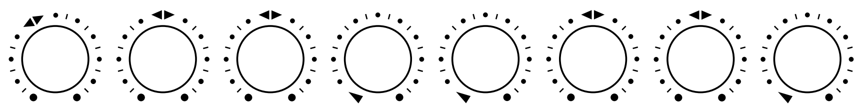
Program Number ____________________

PRE - AMP | BUZZ | PUNCH | CRUNCH | DRIVE | LOW | HIGH | LEVEL



Notes ____

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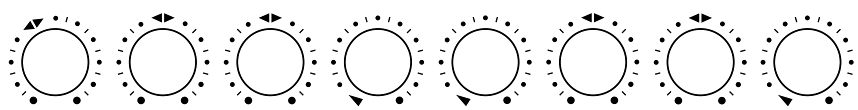
Program Number ____________________

PRE - AMP | BUZZ | PUNCH | CRUNCH | DRIVE | LOW | HIGH | LEVEL



Notes ____

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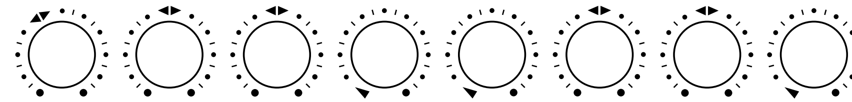
Program Number ____________________

PRE - AMP | BUZZ | PUNCH | CRUNCH | DRIVE | LOW | HIGH | LEVEL



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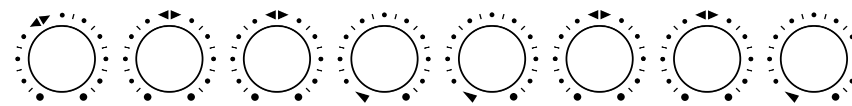
Program Number ____________________

PRE - AMP | BUZZ | PUNCH | CRUNCH | DRIVE | LOW | HIGH | LEVEL



Notes ____

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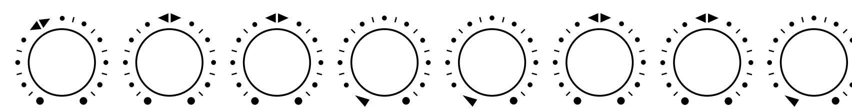
Program Number ____________________

PRE - AMP | BUZZ | PUNCH | CRUNCH | DRIVE | LOW | HIGH | LEVEL



Notes ____

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SansAmp™ MODEL PSA-1

GLOBAL RESET

If you want to completely reset your unit back to factory specifications, follow this procedure: Unplug the unit's power cord. Turn all pots all the way counter-clockwise to minimum. Push the **Up** and **Down** buttons simultaneously, while re-plugging the power cord back into an AC outlet. The two dots in the upper left hand corner of the display will light up. Release the **Up** and **Down** buttons. Wait approx. 10 seconds for the dots to go dark. The display will show 00. That's it. You're back to how the unit was originally shipped.

WARNINGS

- Attempting to repair this unit is not recommended and may void its warranty.
- Missing or altered serial numbers automatically void the warranty. For your own protection, be sure that the serial number labels on the unit's back plate and exterior box are intact.

ONE-YEAR LIMITED WARRANTY

Manufacturer warrants unit to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase. This warranty does not include damage resulting from accident, misuse, abuse, alteration, or incorrect current or voltage. If unit becomes defective within warranty period, Tech 21, Inc., will elect to repair or replace it free of charge. After warranty period expires, manufacturer will repair defective unit for a fee.

PROOF OF PURCHASE IS REQUIRED FOR ANY REPAIR

For residents of the U.S. and Canada, please call Tech 21's main headquarters for shipping instructions and a Return Authorization Number. Tech 21 will not accept packages without prior authorization, pre-paid freight (UPS preferred), and proper insurance.

FOR PERSONAL ASSISTANCE & INQUIRIES

Contact Tech 21, Inc., any weekday from 10:00 AM to 5:00 PM, Eastern Standard Time.

MADE IN THE U.S.A.

Fill in the following information for future reference:
Model _____ Serial Number_____
Dealer's Name _____
Dealer's Address _____
Date of Purchase _____

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Website: www.tech 21nyc.com
E-mail: info@tech21nyc.com

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