

## POWER REQUIREMENTS

Utilizes included 9V DC, 100-240V universal auto-switching power supply, 200mA, center negative. **Tech 21 Model #DC9.**

**NOTE: See page 2 for instructions how to change the prong assembly.**

For replacements, contact your local dealer/distributor, or Tech 21. Maximum power consumption: approx 55mA.

## WARNINGS:

- \* There are no user-serviceable parts inside. Attempting to repair unit is not recommended and may void warranty.
- \* Missing or altered serial numbers automatically void warranty. For your own protection: be sure serial number labels on the unit's back plate and exterior box are intact, and return your warranty registration card or register online.



**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## WARRANTY:

### ONE YEAR LIMITED. PROOF OF PURCHASE REQUIRED.

Manufacturer warrants unit to be free from defects in materials and workmanship for one (1) year from date of purchase to the original purchaser and is not transferable. 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 will repair or replace it free of charge. After expiration, Tech 21 will repair defective unit for a fee.

## REPAIRS:

**ALL REPAIRS** for residents of U.S. and Canada: Call Tech 21 for **Return Authorization Number**. Manufacturer will **not** accept packages without prior authorization, pre-paid freight (UPS preferred) and proper insurance.

## FOR PERSONAL ASSISTANCE & SERVICE:

Contact Tech 21 weekdays 10:00 AM to 5:00 PM, EST: 973-777-6996.

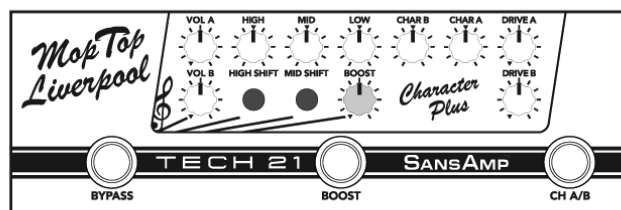
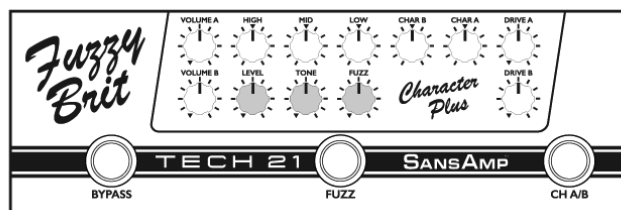
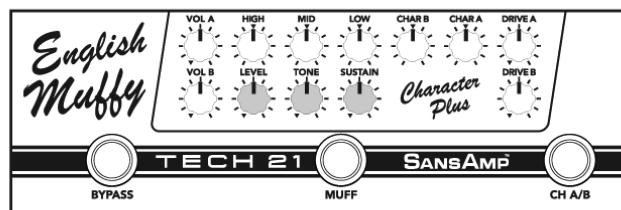
**Hand-built in the U.S.A.** using high-quality components sourced domestically and around the globe.



T: 973-777-6996 • F: 973-777-9899  
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# SansAmp™ Character Plus Series TECH 21



## TECH 21, THE COMPANY

Tech 21 was formed by a guitarist possessing the unusual combination of a trained ear and electronics expertise. In 1989, B. Andrew Barta made his invention commercially available to players and studios around the world. His highly-acclaimed **SansAmp™** pioneered Tube Amplifier Emulation in professional applications for recording direct and performing live, and created an entirely new category of signal processing. There have since been many entries into this niche, yet SansAmp continues to maintain its reputation as the industry standard.

Each product is thoughtfully and respectfully designed by B. Andrew Barta himself with the player in mind. He continually strives to offer player-friendly, truly useful, flexible, multi-functional, roadworthy, work-horse products. In a world of planned obsolescence and constant upgrades, many of our products have changed little, or not at all, and are still in production today. We take great pride in delivering consistent quality sound, studio to studio, club to club, arena to arena.

## PRODUCT OVERVIEW

The original SansAmp Character Series was introduced in 2008. These pedals commemorated a range of eras within specific amplifier personalities, of which there were 8 in total. By simply twisting a few knobs, you could build the most sought-after tones and hot rod your own. From rare vintage classics to roaring modern icons, every variation was delivered in their own distinctive voicings.

We wanted to broaden the range of tonal options and took that concept a step further to include effects. Because there's a certain chemistry between specific pairings that will forever be a part of history. Think Ralph & Alice. Fred & Wilma. Lucy & Ricky. Abbott & Costello. Bonnie & Clyde. They all made a lot of noise and they all had a lot of fun!

The Character Plus Series celebrates the unique chemistry between specific historic amplifiers and specific historic effects, and cleverly unites them together in single packages:

Screaming Blonde	= Fender-style + Tube Screamer-style
English Muff	= HiWatt-style + Big Muff-style
Fuzzy Brit	= Marshall-style + Fuzz Face-style
Mop Top Liverpool	= Vox-style + Rangemaster Booster-style

With an abundance of knob controls, the 2-channel Character Plus Series pedals are easy to use and feature our proprietary, **100% analog SansAmp technology**. You can explore and tailor various eras within each amp style simply by turning a knob. Each continuously-variable Character control sweeps through an entire tonal range, spanning decades of sounds. The Character, EQ controls and speaker simulation are individually voiced to reflect the specific personality traits inherent in each amp style.

Additionally, each of these multi-function pedals is like having a stompbox within a stompbox. (BOGO anyone?) You can use the amp emulation on its own or just the effect on its own.

The Character Plus Series pedals offer significant flexibility and value at a nominal price. Whether you're frugal or extravagant, you can focus on the one that is your personal favorite or collect them all --and trade them with your friends!

## APPLICATIONS

### AS A STOMPBOX with a guitar amp.

You can connect the Character Plus Series pedals in-line just as you would a standard distortion pedal. If the pre-amp of your amplifier is imparting too much of its own character on the pedal, plug into the low level input and set the pre-amp as clean and neutral as possible. As most amps tend to be on the bright side, you may need to start with High below 12 o'clock; adjust as necessary. You can also plug into the effects loop return (if your amp has one). This will disable the entire pre-amp of the amp for a truer representation of the sound. **NOTE:** the master volume on your amp will be defeated, so be sure to have the volume control down on the pedal.

**AS A PRE-AMP driving a power amp.** The 1/4" output of the Character Plus pedal has enough juice to drive a standard power amplifier. Simply connect the 1/4" output to the power amp input and adjust the Level control accordingly. You will probably not use the bypass mode of the pedal in this setup.

**AS A DIRECT RECORDING DEVICE into mixer or computer.** All of the tone shaping and cabinet emulation needed is already incorporated into the pedal, giving you the perfect sound "right out of the box." The Character Plus Series pedals automatically convert your guitar signal to Low Z allowing you to plug into a variety of inputs that would normally load down your guitar's signal. These pedals can be plugged into mixers (live and studio), workstation/recorders, and even directly into the sound card on a computer.

## THE INS AND OUTS

**1/4" INPUT:** 1megOhm instrument level. For normal operation, signal level to Input should be close to that of a standard guitar (approximately 250mV).

**!! WARNING !! DO NOT run the speaker output of any amp directly into the SansAmp input.**  
Severe damage to the amp and/or the SansAmp will result.

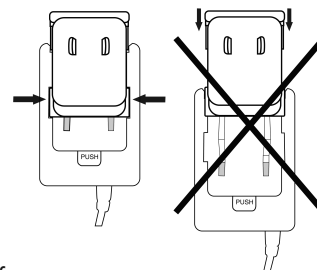
**1/4" UNIVERSAL OUTPUT:** Unbalanced Low Z output. This output can be connected to High Z amplifiers (or effects) as well as Low Z mixer and computer inputs. Output level is unity gain when pedal is in bypass mode. It also drives long cables without loss of signal integrity, even in bypass.

**BALANCED XLR OUTPUT:** Balanced Low Z output.

**NOTE: Both outputs can be used simultaneously.** For example, 1/4" Out to your amp and XLR Out to PA mixer.

## UNIVERSAL POWER SUPPLY

The Character Plus Series pedals are shipped with a power supply set up with a U.S. prong assembly. To change the prong assembly to one of the included European, UK or Australia/New Zealand styles, be sure the power supply is unplugged and follow these instructions:



Press the PUSH switch to release the prong assembly. Slide the assembly up (about halfway) to align the side tabs of the prong assembly with the slots of the power supply housing. Then pull up to remove the assembly. Choose the new prong assembly, align the side tabs with the slot of the housing, slide down until it clicks into position.

**NOTE: You cannot slide the prong assembly all the way out or all the way in.**

## SCREAMING BLONDE GUIDE TO CONTROLS

(in order of signal flow)

### Independent SansAmp Section:

#### DRIVE A and DRIVE B

Adjusts the overall amount of gain and overdrive, similar to when the output section of a tube amp is being pushed. The first half of the rotation will increase the volume as well as the overdrive.

#### CHAR A and CHAR B

Both Char A and Char B have the same range as each other. They sweep through an entire range of tonal possibilities associated with Fender-style amplifiers. In addition to modifying the frequency response, Character also influences the attack and drive characteristics. Therefore, you may need to adjust your gain and tone settings after tweaking the Character control.

#### Range of Settings:

- **Below 12 o'clock** are in the Black and Silver Face family. When clean, there's a soft midrange with a nice top-end sparkle. Driven, the tone moves to a warmer low-end breakup.
- **Around 12 o'clock** brings you into Blonde territory with more of everything --more lows, more mids and more highs.
- **Above 12 o'clock** moves things into the Tweed era with a pronounced midrange bark.
- **Full up** gives you lead boosted tones.

#### LOW, MID, HIGH

On-board post-EQ section gives you full control, like having a studio mixing board at your fingertips. Unlike passive tone controls that only cut, these active controls cut and boost  $\pm 12$ dB. Low is tuned to 125 Hz; High frequency is 3.2 kHz. Mid is tuned to 1kHz.

#### VOL A and VOL B

Adjusts the volume of the SansAmp section.

### Independent Scream Section:

#### OVERDRIVE

Adjusts the overall amount of drive. Highly interactive with the level of your guitar. For instance, you can clean up the amount of distortion by decreasing the guitar's volume (except in very extreme settings) without having to change the setting on the pedal.

#### TONE

Specialized voicing for adjusting the high-end and mid-range. At max, it's flat. As you reduce the setting, it will decrease the high-end without losing mids or getting muddy.

#### LEVEL

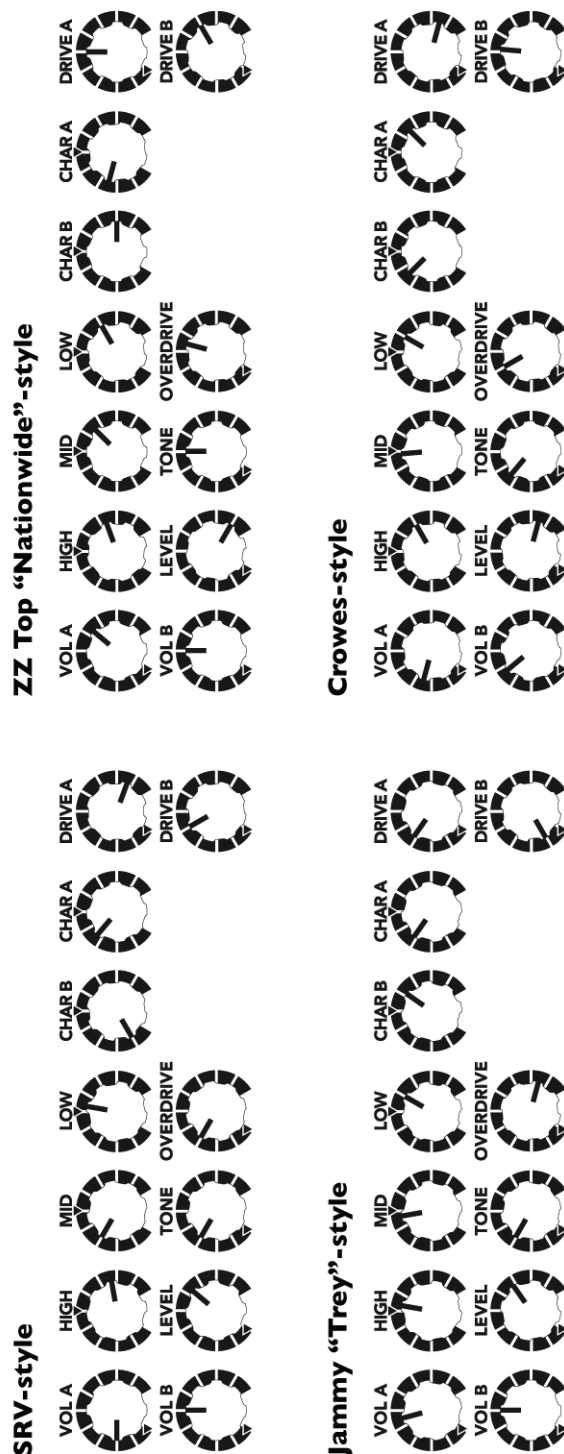
Adjusts the level of the Scream section.

### SPEAKER SIMULATION

Speaker simulation is an integral part of the SansAmp circuitry. It is designed for a smooth, even response as would be achieved by a multiply-miked cabinet, without the peaks, valleys, and notches associated with single miking. The shape of the speaker curve will not adversely effect or interfere with the frequency response of your own cabinet. The speaker simulation works in tandem with the EQ controls to custom tailor the overall sound.

**Screaming Blonde:** tuned to match standard 12" Jensen®-style speakers.

## SCREAMING BLONDE SAMPLE SETTINGS



Sample settings are based on using the appropriate instruments for the tones described. Names of sample settings are intended for descriptive purposes only and should not be construed as an endorsement or affiliation with the companies, products, or artists named.

## ENGLISH MUFFY GUIDE TO CONTROLS

(in order of signal flow)

### Independent SansAmp Section:

#### DRIVE A and DRIVE B

Adjusts the overall amount of gain and overdrive, similar to when the output section of a tube amp is being pushed. The first half of the rotation will increase the volume as well as the overdrive.

#### CHAR A and CHAR B

Both Char A and Char B have the same range as each other. They sweep through an entire range of tonal possibilities associated with HiWatt-style amplifiers. In addition to modifying the frequency response, Character also influences the attack and drive characteristics. Therefore, you may need to adjust your gain and tone settings after tweaking the Character control.

#### Range of Settings:

- **Below 12 o'clock** yield clean, classic Hi-Watt-style tones.
- **Nearing 12 o'clock** brings you into crunchier territory associated with '70s Who-style tunes such as *Who Are You*, *Baba O'Riley*, and *We Won't Get Fooled Again*.
- **Above 12 o'clock** accentuates upper mids for Gilmour/Floyd-style leads.
- **Full up** may cause your mate or your lead singer to flee the premises, which could be desirable in certain circumstances.

#### LOW, MID, HIGH

On-board post-EQ section gives you full control, like having a studio mixing board at your fingertips. Unlike passive tone controls that only cut, these active controls cut and boost.

Shifting MID is tuned to +12dB @ 400 Hz. to -12dB @ 750 Hz.

LOW and HIGH emulate '70s British console EQ:

LOW is tuned to +22dB boost or -12dB cut @ 120 Hz.

HIGH is tuned to +30dB boost or -12dB cut @ 3.2 kHz.

#### VOL A and VOL B

Adjusts the volume of the SansAmp section.

### Independent Muff Section:

#### SUSTAIN

Adjusts the overall amount of fuzz.

#### TONE

Based on the original '60s stompbox design, this very musical, specialized passive filter tilt is centered at 1kHz.

#### LEVEL

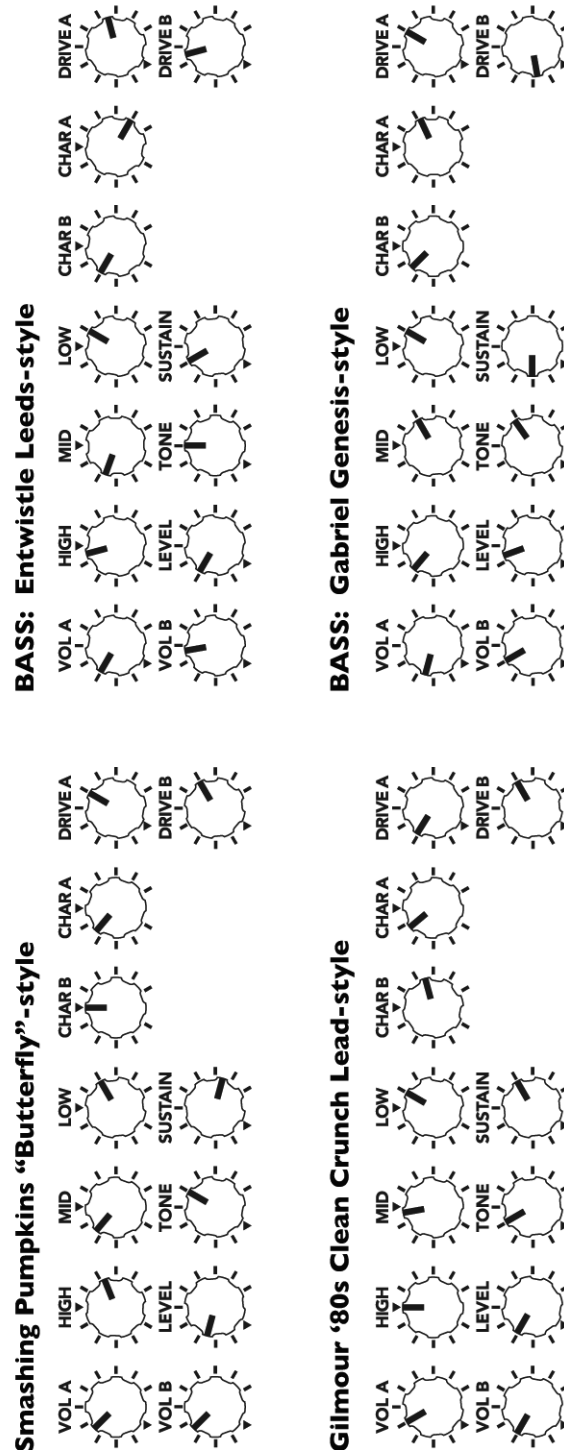
Adjusts the level of the Muff section.

### SPEAKER SIMULATION

Speaker simulation is an integral part of the SansAmp circuitry. It is designed for a smooth, even response as would be achieved by a multiply-miked cabinet, without the peaks, valleys, and notches associated with single miking. The shape of the speaker curve will not adversely effect or interfere with the frequency response of your own cabinet. The speaker simulation works in tandem with the EQ controls to custom tailor the overall sound.

**English Muffy:** tuned to match Fane®-style speakers.

## ENGLISH MUFFY SAMPLE SETTINGS



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## FUZZY BRIT GUIDE TO CONTROLS

(in order of signal flow)

### Independent SansAmp Section:

#### DRIVE A and DRIVE B

Adjusts the overall amount of gain and overdrive, similar to when the output section of a tube amp is being pushed. The first half of the rotation will increase the volume as well as the overdrive.

#### CHAR A and CHAR B

Both Char A and Char B have the same range as each other. They sweep through an entire range of tonal possibilities associated with Marshall-style amplifiers. In addition to modifying the frequency response, Character also influences the attack and drive characteristics. Therefore, you may need to adjust your gain and tone settings after tweaking the Character control.

#### Range of Settings:

- **Below 12 o'clock** bring you the Bluesbreaker/JTM45® era of British blues-- warm, overdriven tone with the characteristic bulldog bite.
- **Nearing 12 o'clock** brings you into the Plexi range with a noticeable throatiness in the mids.
- **Above 12 o'clock** gets you the classic presence boost of the '70s Metal-face.
- **Full up** it goes to 11. That's right, 11.

#### LOW, MID, HIGH

On-board post-EQ section gives you full control, like having a studio mixing board at your fingertips. Unlike passive tone controls that only cut, these active controls cut and boost  $\pm 12$ dB. Low is tuned to 125 Hz; High frequency is 3.2 kHz. Mid is tuned to 1kHz.

#### VOL A and VOL B

Adjusts the volume of the SansAmp section.

### Independent Fuzz Section:

#### FUZZ

Adjusts the overall amount of fuzz. Highly interactive with the level of your guitar. For instance, you can clean up the amount of fuzz by decreasing the guitar's volume (except in very extreme settings) without having to change the setting on the pedal. Conversely, you can increase the amount of fuzz by simply increasing the guitar's volume.

#### TONE

Very musical, specialized low pass filter that shifts the high cut from 10kHz to 1kHz. It allows you to remove the high end without losing mids or getting muddy.

#### LEVEL

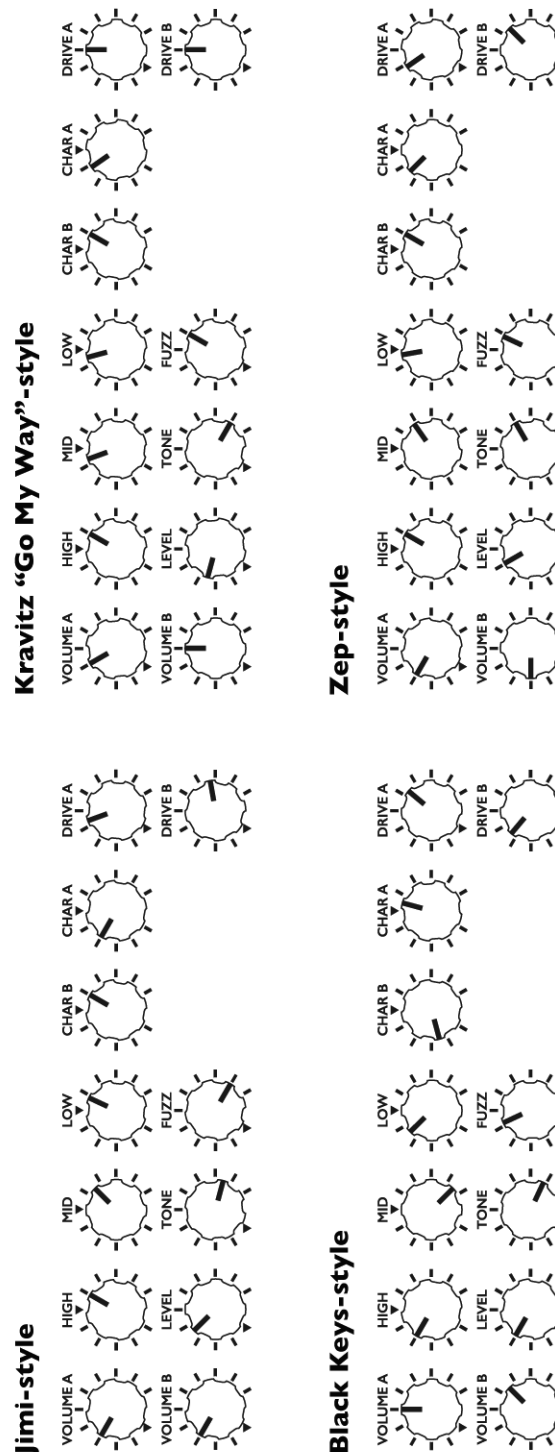
Adjusts the level of the Fuzz section.

### SPEAKER SIMULATION

Speaker simulation is an integral part of the SansAmp circuitry. It is designed for a smooth, even response as would be achieved by a multiply-miked cabinet, without the peaks, valleys, and notches associated with single miking. The shape of the speaker curve will not adversely effect or interfere with the frequency response of your own cabinet. The speaker simulation works in tandem with the EQ controls to custom tailor the overall sound.

**Fuzzy Brit:** tuned to match English Greenback-style speakers.

## FUZZY BRIT SAMPLE SETTINGS



Sample settings are based on using the appropriate instruments for the tones described. Names of sample settings are intended for descriptive purposes only and should not be construed as an endorsement or affiliation with the companies, products, or artists named.

## MOP TOP LIVERPOOL GUIDE TO CONTROLS

(in order of signal flow)

### Independent SansAmp Section:

#### DRIVE A and DRIVE B

Adjusts the overall amount of gain and overdrive, similar to when the output section of a tube amp is being pushed. The first half of the rotation will increase the volume as well as the overdrive.

#### CHAR A and CHAR B

Sweeps through an entire range of tonal possibilities associated with Vox-style amplifiers. Char A's territory covers cranked up tone stacks. Char B stays in uncranked territory. Each Character also influences the attack and drive characteristics. Therefore, you may need to adjust your gain and tone settings after tweaking the Character controls.

#### CHAR A Range of Settings:

- **Below 12 o'clock** serves up the tone of a Top Boost with controls set to 9:00, for a throatier clean sound and warm overdriven tones.
- **Advancing towards 12 o'clock** brings in classic British mids.
- **Passing 12 o'clock** increases clarity to crunchy and overdriven tones.
- **Full up** adds the upper mid crackle of pushed Alnico speakers.

#### CHAR B Range of Settings:

- **Below 12 o'clock** serves up the tone of a Top Boost with controls set to 3:00, for full clean sound with lots of bass and highs.
- **Advancing towards 12 o'clock** brings in classic British mids.
- **Passing 12 o'clock** brings in the vocal quality of "Woman Tone."
- **Full up** boosts the low mids for non-Top Boost AC30-style tone.

#### LOW, MID, HIGH

On-board post-EQ section gives you full control, like having a studio mixing board at your fingertips. Unlike passive tone controls that only cut, these active controls cut and boost  $\pm 12$ dB. Low is tuned to 125 Hz; High frequency is 3.2kHz. Mid is tuned to 325 Hz.

#### MID SHIFT SWITCH

Shifts the frequency of Mid from 325 Hz to 250 Hz.

#### HIGH SHIFT SWITCH

Shifts the frequency of High from 3.2kHz to 4.5kHz.

#### VOL A and VOL B

Adjusts the volume of the SansAmp section.

### Independent Boost Section:

#### BOOST

Uniquely offers 2 boosts in one knob: At 12 o'clock, it's flat.

**Up to 12dB Treble Boost** when you turn clockwise for a brighter, louder, edgier '60s and 70s vintage vibe.

**Up to 12dB Mid-Range Boost** turning counter-clockwise, which tightens up distortion, rhythm and lead tones for more modern vibes.

### SPEAKER SIMULATION

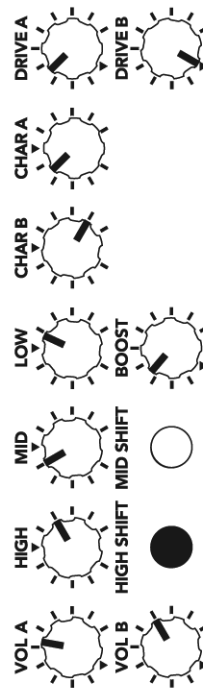
Speaker simulation is an integral part of the SansAmp circuitry. It is designed for a smooth, even response as would be achieved by a multi-miked cabinet, without the peaks, valleys, and notches associated with single miking. The shape of the speaker curve will not adversely effect or interfere with the frequency response of your own cabinet. The speaker simulation works in tandem with the EQ controls to custom tailor the overall sound.

**Mop Top Liverpool:** tuned to match English Alnico Bulldog-style speakers.

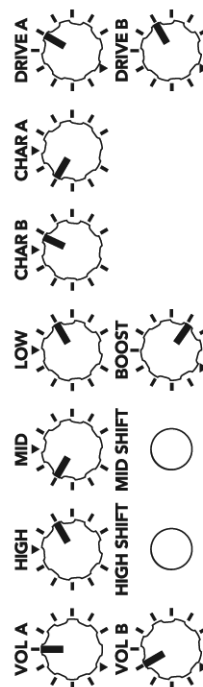
## MOP TOP LIVERPOOL SAMPLE SETTINGS

ON (IN)  OFF (OUT)

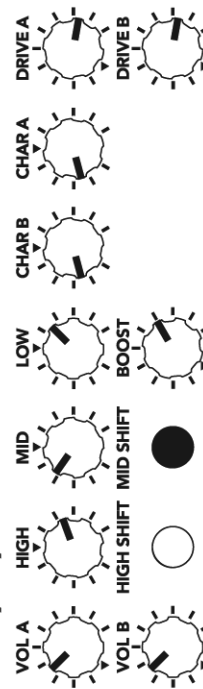
### Beatles "Get Back" John, George Lead-style



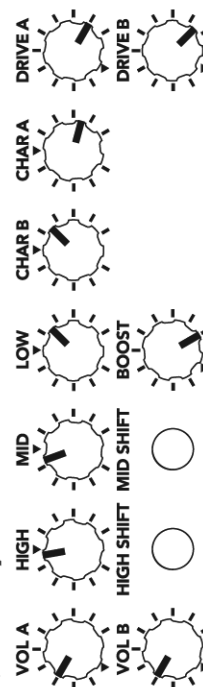
### Petty "Breakdown" Clean Crunch Lead-style



### Paisley-style



### Queen-style

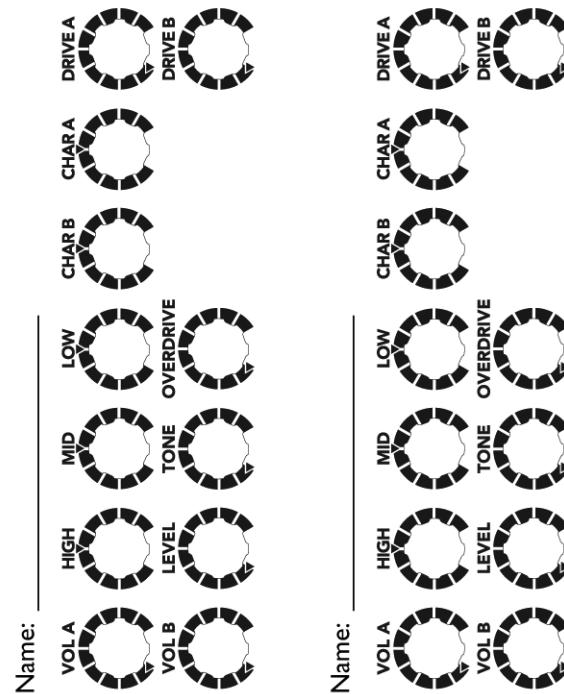


Sample settings are based on using the appropriate instruments for the tones described. Names of sample settings are intended for descriptive purposes only and should not be construed as an endorsement or affiliation with the companies, products, or artists named.

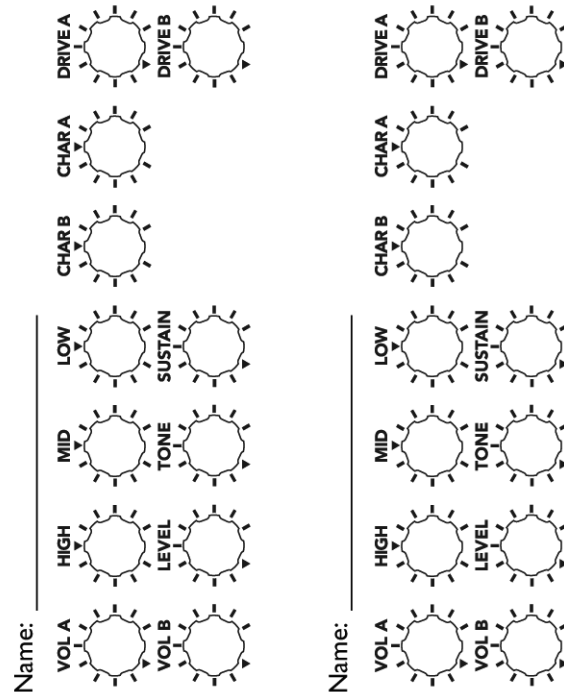
## NOTEWORTHY NOTES

- 1) Each SansAmp and effects sections are independent.**  
This means you can use the amp emulation on its own or just the effect on its own. It's like getting a stompbox within a stompbox! (This bears repeating, in case you didn't read the product overview.)
- 2) Tech 21 controls are unusually sensitive** and tend to perform well beyond what would be considered "normal." So you need not necessarily set everything at max to get maximum results. For instance, to brighten your sound, rather than automatically boosting High all the way up, try cutting back on Low first.
- 3) To find the best settings** for interacting with your other gear, you may need to use radically different settings for each individual way you use it. You need not be discouraged or suspect something is wrong with the unit. If you have your sound, you've simply found the right balance to complement each individual piece of gear. We recommend you start with the tone controls at 12 o'clock and cut or boost as needed.
- 4) Tech 21 pedals have exceptionally low noise levels.** However, they may amplify noise emanating from the input source. Check for pickup interference by moving your guitar or turning the volume off. Be aware single coil magnetic pickups are more likely to generate noise. And be sure your cell phone is not near your gear!
- 5) Placement notes:** Each pedal in the Character Plus Series can be treated as any conventional amplifier or pre-amp when it comes to setting up your signal chain:  
  - Place the following effects BEFORE the CPS:**  
Booster, Compression, Fuzz, Phaser/Vibe, Overdrive, Wah.
  - Place the following effects AFTER the CPS:**  
Delay, EQ, Flanger, Phaser (yes, after is good, too), Pitch Shifter, Reverb.
- 6) Buffered bypass** eliminates the shortcomings associated with "true bypass" (pops and clicks, and high-end loss when multiple pedals are connected together), as well as signal loss associated with other types of switching circuits.
- 7) Custom actuators.** All Tech 21 pedals feature smooth, custom, silent-switching actuators.

## SCREAMING BLONDE CUSTOM SETTINGS



## ENGLISH MUFFY CUSTOM SETTINGS



## FUZZY BRIT CUSTOM SETTINGS

Name: \_\_\_\_\_

VOLUME A		VOLUME B	
HIGH		LEVEL	
MID		TONE	
LOW		FUZZ	
CHAR B			
CHAR A			
DRIVE A		DRIVE B	

Name: \_\_\_\_\_

VOLUME A		VOLUME B	
HIGH		LEVEL	
MID		TONE	
LOW		FUZZ	
CHAR B			
CHAR A			
DRIVE A		DRIVE B	

## MOP TOP LIVERPOOL CUSTOM SETTINGS

ON (IN)  OFF (OUT)

Name: \_\_\_\_\_

VOL A		VOL B	
HIGH		HIGH SHIFT	<input type="radio"/>
MID		MID SHIFT	<input type="radio"/>
LOW		BOOST	
CHAR B			
CHAR A			
DRIVE A		DRIVE B	

Name: \_\_\_\_\_

VOL A		VOL B	
HIGH		HIGH SHIFT	<input type="radio"/>
MID		MID SHIFT	<input type="radio"/>
LOW		BOOST	
CHAR B			
CHAR A			
DRIVE A		DRIVE B	